# Mineral Wool

*Low in Thermal Conductivity and Low in Cost*

The exceptionally low thermal conductivity of Mineral Wool (6.3 B.T.U.) as determined by the U. S. Bureau of Standards, stamps it as the ideal insulating material for

## Cold Storage Construction

It assures perfect insulation and maximum efficiency at a low cost.

Mineral Wool is entirely mineral, indestructible, vermin-proof and easy to apply.

Sample and descriptive folder upon request.

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280 Madison Avenue, New York
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SAVOY HOTEL
750 ROOMS
WOODWARD at ADELAIDE
DETROIT
EXQUISITELY FURNISHED ROOMS EACH *with* BATH
$2.50 to $4.00 SINGLE
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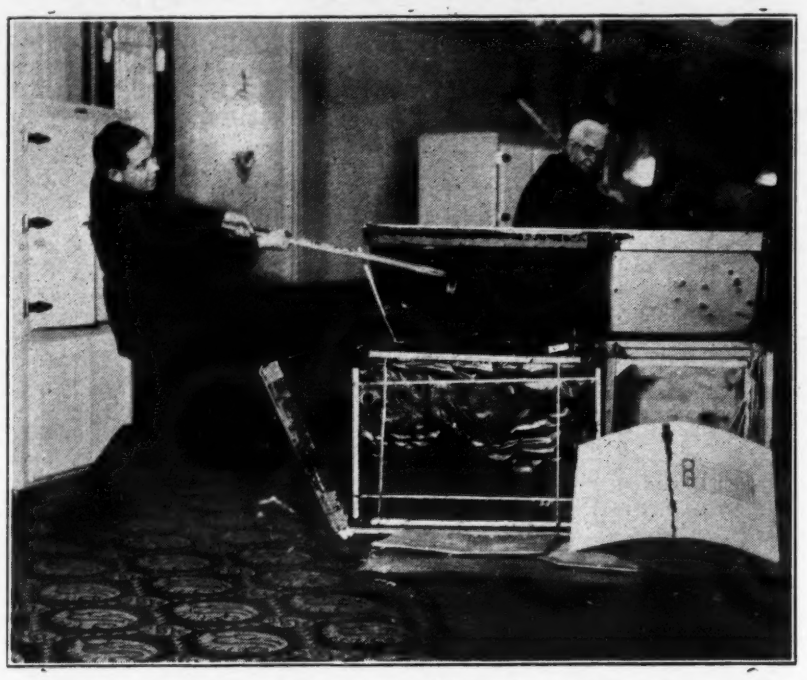
SAVOY GRILL
AND COFFEE SHOP
SELECTED FOODS OF KNOWN QUALITY
IN THE HEART OF

KEROTEST
FORGED BRASS VALVES *for* Mechanical Refrigeration
Quality Shut-off and Cylinder valves in any standard designs or to your specifications.
KEROTEST MANUFACTURING CO.
2525 LIBERTY AVENUE
PITTSBURGH, PENNA.


# Husky Salesmen Test Construction of Servel Unit With Sledge Hammers



**Vernon E. Vining, sales manager, Servel Sales, Inc. and E. A. Cressey, vice-president C. C. Harvey Co., Metropolitan Boston Servel distributors take a few sledge hammer whacks at a Servel which Mr. Vining used to illustrate his talk during district convention in Hotel Statler, Boston, March 27. Huskiest dealers and salesmen were invited to wreck the cabinet. Photo was taken after the four huskiest members had been wrecking the cabinet for some time.**

## NEW DEALERS & DISTRIBUTORS

Recent appointments announced by manufacturers and new sales outlets reported from the field.

### Copeland

**Distributors:**

Hartleip Electric Co., 321 W. 4th St., Waterloo, Iowa.
Knudson Sales Company, 505 Kellogg St., Ames, Iowa.
C. A. Clark & Son, Main and "B" Streets, Hamilton, Ohio.

**Dealers:**

James E. Robertson, North Tonawanda, N. Y.
Ireland Electric Co., 350 Main Street, Bolivar, N. Y.
The Bolles Hardware, Naples, N. Y.
B. L. Grant & Son, Cortland, N. Y.
Lee Wiles, Rush, N. Y.
William Eaton & Son, Gowanda, N. Y.
Montauk Music Shop, 228 Merrick Rd., Rockville Centre, N. Y.
Bennett & Bartlett, Honeoye, N. Y.
Kopf & Portor, 106 Castel St., Geneva, N. Y.
Alhart Electric Co., Inc., 1147 Culver Road, Rochester, N. Y.
Peter Ignition Service, 1700 Dewey Ave., Rochester, N. Y.
J. E. Harvey, Mumford, N. Y.
Square Deal Electric Co., 271 Central Ave., Silver Creek, N. Y.
Reynolds Radio Electric Shop, Medina, N. Y.
A. C. Skutt, Morton, N. Y.
Neil S. Caldwell, York, N. Y.
Glen F. Wilson, Albion, N. Y.
St. Charles Ice & Coal Co., St. Charles, Mo.
Charles P. Sayers, Milan, Mo.
Radio Sales Co., Joplin, Mo.
Webb City Furniture Co., Webb City, Mo.
Walker Jewelry Co., Eldorado Springs, Mo.
Walden Electric Co., Sedalia, Mo.
Bigalte Electric Co., 4545 Gravois Ave., St. Louis, Mo.
H. Wagner Furniture Co., 1617 S. Jefferson Ave., St. Louis, Mo.
Efficient Electric Co., Inc., 1919 Olive St., St. Louis, Mo. (Sales only.)
Liberty Electric Co., 10613 Superior Ave., Cleveland, Ohio.
Vincent Barstow Co., 10022 Euclid Ave., Cleveland, Ohio.
Gerhardt Electric Co., 15711 Detroit Ave., Cleveland, Ohio.
Oden Electric Co., 9114 Lorain Ave., Cleveland, Ohio.
Heights Electric Co., 2203 Lee Rd., Cleveland, Ohio.
Pfahl Electric Co., 3074 W. 25th St., Cleveland, Ohio.
Schwab Electric Co., 4138 Pearl Rd., Cleveland, Ohio.
Euclid-Doan Electric Co., 1815 Coventry Rd., Cleveland, Ohio.
Schleuninger Bros., 938 E. 152nd St., Cleveland, Ohio.
Central Garage, Hopewell, N. J.
Harvey Tindall, Hamilton Square, N. J.
Greer Myles & Co., Westwood, N. J.
James Reeside, Jersey City, N. J.
Security Furniture Co., Inc., Trenton, N. J. (Sales only.)
Stephenson Bros., 19 Main St., East Orange, N. J.
Renan C. Baum, Oil City, Pa.
Wagner Bros. Hardware Co., Broad St., Hazelton, Pa.
Blimline Auto Supply Co., 28 S. Fifth St., Reading, Pa.
B. O. R. Radio Co., Inc., 35 North 9th St., Reading, Pa.
Lewis W. Fitzgerald, Newton, Pa.
J. & A. Electric Co., 7228 Tioga St., Pittsburgh, Pa.
Dushek Hardware Co., Elgin, Minn.
Baker Sales Company, Staples, Minn.
Fjeseth & Degre, Hendricks, Minn.
Frase & Beyer Furniture Co., 115 N. North Ave., Fairmont, Minn.
Grigsby Oil Heating Sales Co., 1503 Monroe, Waukegan, Ill.
Turigliatto & Toigo, Beuld, Ill.
W. R. Donohoo, Pearl, Ill.
I. C. Straker, Herrin, Ill.
T. J. Graves & Son, N. Uvalde, Texas.
Kirkwood & Wharton, San Antonio, Tex. (Sales and service.)
R. Linnartz, Schulenburg, Tex.
Zimmerman & Son, Cleburne, Tex.
J. D. Guerrant, Danville, Ky.
Bourbon Battery Station, Paris, Ky.
A. W. Comingo, Harrodsburg. Ky.
Becker Battery & Weld Co., White City, Kans.
Shannon Hardware Co., Iola, Kans.
V. & C. Radio Co., Pittsburg, Kans.
United Music Co., 19 Main St., Brockton, Mass.
Cape Cod Natural Gas Co., Hyannis, Mass.
S. H. Levisay, Covington, Va.
People's Hardware Corp., Harrisonburg, Va.
M. E. Goode, Medera, Calif.
Oswald's Golden Gate Refrigerating Works, San Francisco, Calif.
Trowbridge Farm Supply Co., Snohomish, Wash.
Pioneer Paint & Wallpaper Co., Hoquian, Wash.
J. J. Forestal, 5451 Ballard Ave., Seattle, Wash.
Frank Rhodes, Renton, Wash.
Sasakwa Hardware Company, Sasakwa, Okla.
Baldwin Hardware Co., Klamath Falls, Ore.
L. C. Stonebroker, Orofino, Idaho.
Westerly Maytag Shop, Westerly, R. I.
Scott-Averill Maytag Co., 81 Main St., Barre, Vermont.
Wilson Electric Company, Henderson, N. C.
H. W. Michael Company, Muncie, Ind.
Maytag Sales, Kenosha, Wis.

## "PLEASE CHANGE MY ADDRESS"

Recent movements of subscribers as indicated by changes in mailing addresses.

**Becker, A. F.**, from 251 Greenwich Ave., Greenwich, Conn., to 79 Atlantic St., Stamford, Conn.

**Bougher, C. L.**, from 45 S. Main St., Salt Lake City, Utah, to c/o Mich. Gas & Elec. Co., Three Rivers, Mich.

**Brien, F. T.**, from 2709 Ivy Drive to 3634 Kingsley St., Oakland, Calif.

**Brown, David A.**, from General Necessities Corp., Detroit, Mich., to 261 Fifth Ave., New York, N. Y.

**Buhrman, H. O.**, from 667 Central Ave., St. Petersburgh, Fla., to Box 32, Jacksonville, Fla.

**Electric Refrigeration Co.**, from 116 W. Washington St. to 333 West Ohio St., Indianapolis, Ind.

**Erco, Inc.**, from 1366 Main St. to 775 Main, Buffalo, N. Y.

**Fatzinger, Harry E.**, from 1245 Fourth St. to 1303 Fifth Ave., San Diego, Calif.

**Ford, Bacon & Davis, Inc.**, from 60 Broadway to 39 Broadway, New York, N. Y.

**Gibson, A. E.**, from 6129 N. Hermitage Ave., Chicago, Ill., to 8891 Cheyenne Ave., Detroit, Mich.

**Gibson, Paul**, from 1202 Woodland Drive to 7492 Wisconsin Ave., St. Louis, Mo.

**Hamilton, C. E.**, from 3753 Wilton to 6500 N. Leavitt St., Chicago, Ill.

**Home Utilities Co.**, from 4715 Delmar Blvd. to 4514 Delmar Blvd., St. Louis, Mo.

**Hupp, Paul H.**, from 1902 Van Camp Ave., Omaha, Nebr., to 314 McCormick Bldg., Salt Lake City, Utah.

**Jensen, M. E.**, from 155 W. 162 St. to 237 167th St., New York, N. Y.

**Jordan, H. S.**, from 1245 Fourth St. to 1303 Fifth Ave., San Diego, Calif.

**Kalatz**, from School of Engineering, Milwaukee, Wis., to 1218 W. Washington Blvd., Chicago, Ill.

**Kortright, H. G.**, from 1128 S. Third St. to 1526 Rosewood Ave., Louisville, Ky.

**Lewis, James L.**, from Mariana, Fla., to 12 S. E. Eighth St., Fort Lauderdale, Fla.

**McC. Price, John**, from 608 S. Dearborn St. to 500 N. Dearborn St., Chicago, Ill.

**McPhail, H. R.**, from 17400 Third Ave. to 20059 Briarcliff Road, Detroit, Mich.

**McQueen, Donald H.**, from 333 Hanchett Ave., San Jose, Calif., to 551 Ramona St., Palo Alto, Calif.

**Melvin, L. J.**, from 106 E. Alexandrine to 250 East Grand Blvd., Detroit, Mich.

**Meyers, L. H.**, from 1211 N. Euclid Ave. to 5624 Penn Ave., Pittsburgh, Pa.

**Morgan, F. H.**, from 821 Columbia St. to 1303 Fifth Ave., San Diego, Calif.

**Quirk, E. E.**, from Box 639, Grand Rapids, Mich., to 39 Maplewood Ave., Akron, Ohio.

**Riemer, A. C.**, from 1505 W. Third Ave., Columbus, Ohio, to 229 Manning Blvd., Albany, N. Y.

**Robinson, Clayton**, from 44 W. 76th St., New York, N. Y., to 7311 Rockaway Blvd., Arverne, L. I., N. Y.

**Rowe, D. D.**, from 710 Lombard Ave. to Claremont Apt., Hotel No. 203, Evansville, Ind.

**Schaefer, K. M.**, from 920 Dorchester Rd., Birmingham, Mich., to 2218 Woodlawn Ave., Royal Oak, Mich.

**Stewart, Jas. K.**, from 171 Sydney St., Cambridge, Mass., to 197 Pine St., Portland, Maine.

**Tanner, F. L., Jr.**, from 488 Hemphill St., Atlanta, Ga., to 7425 N. Damen Ave., Chicago, Ill.

**TeBeau, F. H.**, from 203 Sherman Bldg., Boston, Mass., to Williams Oil-O-Matic Heating Corp., Bloomington, Ill.

**White, Geo. D.**, from 214 Park Ave., Mechanicville, N. Y., to c/o Associated Gas & Elec. System, Brewster, N. Y.

**Wooton, George**, from 713 Atwood Rd. to 48th and Locust Sts., Philadelphia, Pa.

## ADDRESSES WANTED

Copies of the News sent to subscribers listed at the addresses given below have not been delivered. Readers knowing the present whereabouts of these subscribers are asked to send such information to the News.

**Bradshaw, B. O.**, Charlotte Hotel, Charlotte, N. C.

**Clark, W. J.**, 3018 Farragut Rd., Brooklyn, N. Y.

**Clay, M. S.**, 16651 Livernois Ave., Detroit, Mich.

**Eichenstein, J.**, 6249 Haverford Ave., Philadelphia, Pa.

**Elder, Herman L.**, 2417 N. 54 St., Philadelphia, Pa.

**Fremont, John**, 305 Main St., Ranger, Tex.

**Fahnestock, E. G.**, 614 Bessemer Bldg., Pittsburgh, Pa.

**Greiling, Herbert H.**, 1807 E. 90 St., Cleveland, Ohio.

**Hamilton, R. M.**, 1602 Tripp Ave., Chicago, Ill.

**Johnson, Chas.**, 576 Lafayette Ave., Brooklyn, N. Y.

**Johnson, M. M.**, 830 State Ave., Cincinnati, Ohio.

**Jones, E. Y.**, 1014 S. Boston, Tulsa, Okla.

**Knight, R. M.**, Electric Refrig. Co., 3710 Main St., Houston, Tex.

**Krug, George**, 299 12 St., Long Island City, N. Y.

**McGlaughlin, J. S.**, 9600 Dexter, Detroit, Mich.

**Loftus, A. J.**, Municipal Light & Water Plant, Wheatland, Wyo.

**North, Robert**, 158 E. 85 St., Rockaway Beach, L. I., N. Y.

**O'Connor, Richard**, 5219 Penlridge St., Philadelphia, Pa.

**Roberts, E.**, 119-21 Metropolitan Ave., Kew Gardens, N. Y.

**Sego, E. P.**, 4744 Kimbark Ave., Chicago, Ill.

**Steeves, C.**, 833 Adams, Albany, Calif.

**Steibel, S. J.**, 2504 E. 20 St., Racine, Wis.

**Sutton, Mrs. E.**, 219 Mathilda St., Pittsburgh, Pa.

## Belding-Hall Co. Moves New York Office and Display Rooms

The eastern commercial division of the Belding-Hall Co. moved its New York City executive offices and display rooms on May 1 to 1504-05, New York Central Building at 230 Park Ave., New York, N. Y. A. L. Canfield is in charge of the eastern offices for the Belding-Hall Co.

## Hajoca Corp. Opens Display Room In Downtown Section

The Hajoca Corp., Philadelphia distributors of Electrolux, has leased a central display room in the Burlington Arcade, 1420 Chestnut St. This Arcade is situated in the busiest section of downtown Philadelphia.


DRINKING WATER FAUCETS
*for*
Refrigerators - - Water Coolers
New model now available for use on city water pressure

Cordley & Hayes
1 Leonard St. New York City


## THE CONDENSER

ADVERTISING RATE fifty cents per line (this column only).

SPECIAL RATE if paid in advance—Positions Wanted—fifty words or less, one insertion $2.00, additional words four cents each. Three insertions $5.00, additional words ten cents each. All other classifications—fifty words or less, one insertion $3.00, additional words six cents each. Three insertions $8.00, additional words sixteen cents each.

### POSITIONS AVAILABLE

As manufacturers of household electrical refrigerators, with a program national in scope, several unusually attractive opportunities are available to men qualified to absorb their responsibilities.

Applications will be welcome from men experienced and intimately familiar with manufacturing and engineering problems of this industry. Likewise, men having taken student courses and familiar with shop activities relating to assembling, charging and testing of refrigerators.

Applications to be considered, must cover fully all details pertaining to age, personal description, married or single, training, experience, and study courses taken.

Applications will receive thorough and fair consideration, and to those that meet our standards of qualifications, a complete outline of opportunities will be sent. Box No. 156.

SALESMANAGER WANTED by reliable commercial refrigerator company doing an elegant business. Will require a small investment as present salesmanager must leave on account of health. The business of this company is growing fast and there is a wonderful opportunity for a good man. Box 165.

HELP WANTED—Ice and refrigeration erecting engineers. Must be entirely practical. Give history, salary and experience in first letter. F. W. Niebling Co., subsidiary of the E. W. Bliss Co., 406 Elm St., Cincinnati, Ohio.

### POSITIONS WANTED

SALES EXECUTIVE. Now available, 44 years of age, with fifteen years' executive experience organization. Direct mail advertising, follow up and closing. Just completed market analysis on electric refrigeration. Possess leadership, initiative combined with personality and magnetism. References satisfactory. Box 163.

### MISCELLANEOUS

CHICAGO DEALER—Installation and service contract wanted on reliable domestic machine. Will consider delivery contract also. Every member of organization an experienced refrigeration man; best references relative to ability, character and stability. Let us convince you we know our business. You concentrate on sales and let us furnish service. Box 166.

WANTED—Distribution for domestic and commercial lines of electric refrigerators in Italy. Experience with American made equipment. Financially responsible. References furnished. Will visit United States in near future to complete arrangements with reliable firm. Box 164.

MACHINERY FOR SALE—We have ten floors of ice and refrigeration machinery such as compressors, pumps, motors, engines and all kinds of ice machine fittings and accessories which we are now selling at bargain prices. Write, wire or phone for anythng you might want in this line. F. W. Niebling Co., subsidiary of the E. W. Bliss Co., 406 Elm St., Cincinnati, Ohio.


**Refrigeration Service Co. Inc.**
SERVICE SPECIALISTS
Installations, Alterations, Repairs, Inspection, Reconditioning, Maintenance
New York City Tel.: Medallion 0028
Nights, Sundays or Holidays Susquehanna 4500
Office and Works 449 West 42nd St. Warehouse 281 11th Ave.

PATENTS
Searches, reports, opinions by a Specialist in
Refrigeration
H. R. VAN DEVENTER
Solicitor of Patents
Refrigeration Engineer
342 Madison Ave., N. Y.

LASSEN — TEMPERATURE — PRESSURE — CONTROLS
POSITIVE RANGE AND DIFFERENTIAL ADJUSTMENT
NON-DETERIORATING MERCURY TUBE SWITCH—MEET ALL REQUIREMENTS
GOODNOW & BLAKE MFG. CO. 3840 BEAVER STREET DETROIT, MICH.

SUPERIOR REFRIGERATOR CASTINGS
FLINT FOUNDRY COMPANY
Division of
General Foundry & Machine Company
FLINT, MICH. MARSHALL, MICH.


## Subscription Order

ELECTRIC REFRIGERATION NEWS,
550 MACCABEES BUILDING, DETROIT, MICH.

Please enter subscription to Electric Refrigeration News.

United States and Possessions:
☐ $2.00 per year. ☐ Three years for $5.00.

All other Countries:
☐ $2.25 per year. ☐ Two years for $4.00.

I am enclosing payment in the form of
☐ Check ☐ P. O. Order ☐ Cash

Name.....

Street Address.....

City and State.....

Remarks:.....

# ELECTRIC REFRIGERATION NEWS

**The business newspaper of the refrigeration industry**

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# 1930 SALES TO EXCEED 1,000,000 UNITS

## A. S. R. E. ANNOUNCES PROGRAM FOR SPRING MEETING, JUNE 20-22

### Household Refrigeration Will Be Taken Up at Closing Session

A TENTATIVE program for the 16th spring meeting of the American Society of Refrigerating Engineers, which will be held at the Pennsylvania State College, State College, Pa., on June 20-22, has been announced by the program committee. On June 21 a joint session will be held with the American Society of Mechanical Engineers, at which time refrigerated transport will be discussed. Household refrigeration will be taken up at the closing session on the morning of June 22.

Recent advisement from the A. S. R. E. headquarters states that the fixed fee is not $30 as previously announced, but for the entire program it will not exceed $22 for a single room, or $19 when two occupy the same room. For those occupying suites in the Women's Building the charge will be slightly higher.

All meetings will be held in the assembly room of Varsity Hall. Additions to the list of exhibitors announced in the May 8 issue of the *News* are Mac-Andrews and Forbes Co., Insulite Co., Keasbey and Mattison, Celotex Co., Invincible House Lining Co., Dry Zero Corp., Stewart Inso Board Co., Ehret Magnesia Manufacturing Co., J. W. Mortell Co., Wood Conversion Co., and the Johns-Manville Corp.

The tentative program follows:

**Thursday, June 20**

9:00 A. M. Registration opens, McAllister Hall. Council and committee meetings.
10:00 A. M. Opening session; Ice Plant Design. Factors in Keeping Ice Plant Records. Oil Engines for Ice Plant Compressors. Structures for Ice Plants.
12:30 P. M. Luncheon in college halls. Council-Author Luncheon.
1:30 P. M. Technical session; Research. Climatic Studies; Effect on Refrigeration. Instruments for Engineering Measurements; Electrical Method.
2:30 P. M. Demonstration of heat transmission investigations. Demonstrations of testing machinery.
10:00 A. M.—3:00 P. M. Refrigeration and insulation exhibit open.
3:30 P. M. Outing in mountains at Colerain Forge, near Spruce Creek; Visit to ice caves.
6:30 P. M. Picnic supper.

**Friday, June 21**

9:30 A. M. Technical session; Refrigerated Transport. (Joint session with railway division, A. S. M. E.). Current Practice in Transit Refrigeration. Economic Factors in Handling Perishables by Rail. Practice in Food Handling.
12:30 P. M. Luncheon.
1:30 P. M. Symposium, continued. Practice in Refrigerator Car Design. Machinery for Pre-cooling Stations. Research Studies on Refrigerated Trains.
10:00 A. M.—6:00 P. M. Exhibits open.
2:00 P. M. Demonstrations of dairy refrigeration.
7:00 P. M. Banquet.

**Saturday, June 22**

9:30 A. M. Technical session, Household Refrigeration. Survey of Household Refrigeration Industry. Merchandising Practice in Refrigerators. Research Work in Refrigerators.

## FRIGIDAIRE NUMBER 1,000,000 PRODUCED

FRIGIDAIRE Corp., Dayton Ohio, celebrated the production of the one millionth Frigidaire unit on Thursday morning, May 16, at the Moraine plant. E. G. Biechler, president and general manager of Frigidaire Corp., C. F. Kettering and J. L. Pratt, vice presidents of the General Motors, and a score of other officials where present when the one millionth unit came off of track three. Mayor A. C. Donald, George W. Lane, president of the Chamber of Commerce, and other prominent citizens in Dayton were also present.

As soon as this model was completed it was placed on a truck and conveyed to the Third National building where it was displayed for several days by H. W. Prior, Frigidaire distributor for the Dayton territory. This model will be transported by plane to Atlantic City, where it will be featured at the exhibition of the National Electric Light Association.

Frigidaire officials have estimated that the one million units already built have refrigeration capacity equivalent to 120,000 tons of ice melting capacity daily. This tonnage would be sufficient to supply 9,600,000 families with 25 pounds of ice daily.

## *CYCLONE GIVES REFRIGERATOR A NEW SALES SLANT*

During a recent cyclone in Duncan, Miss., which blew away practically the whole town and killed twenty-three people, the life of one man was saved by crouching in back of a General Electric refrigerator.

After the storm had cleared away, the man found his home completely demolished, but his electric refrigerator was still able to operate as though nothing had happened. At least, that's the story.

## LIBERTY TOOL & GAGE NOW PRODUCING 200 MACHINES PER WEEK

A. W. KEEMA, president of the Liberty Tool & Gage Co., Providence, R. I., announces that production of Liberty machines is averaging 200 units per week and will be increased to 300 within the next three weeks. This company entered the refrigeration field about a year ago and started to market the Liberty unit about Feb. 1 of this year.

Seeger cabinets are used with Liberty condensing units, which are designed for boxes ranging from 4½ to 10 cu. ft. of storage space. Methyl chloride is the refrigerant. Water coolers with compartments for making ice cubes and cooling bottled beverages are included in the Liberty line.

Other officials of the company are A. Kalberer, treasurer, and E. Berg, chief engineer. Post & Lester Co., Boston, Mass., manufacturers agents, have taken over distribution in New England territory. Stanley & Patterson Co., New York, N. Y., are distributors in that territory.

## ICE-O-LATOR UNIT SOLD TO LARGE MANUFACTURER; BUYER'S NAME WITHHELD

Patents, copyrights, and trade-marks of the Ice-o-lator, gas operated, absorption type refrigerator, manufactured by the National Refrigerating Co., 125 Munson St., New Haven, Conn., have been sold. While the name of the buyer has not been divulged, it is understood that the purchaser is one of the largest manufacturers of electric refrigerators.

## VISIT SPACE NO. 228 AT ATLANTIC CITY

**While at the National Electric Light Association convention, you are cordially invited to visit space No. 228, the convention headquarters of Electric Refrigeration News, This booth will be at your disposal. Drop in and rest and meet your friends there.**

## *Legal Action Against Unfair Trade Practices Discussed by N.E.M.A. Refrigeration Div.*

### Attention Focused on Five Rules Approved By Federal Trade Commission

AN important step in the direction of cleaning up particular practices in the electric refrigeration industry was taken at the meeting of the Refrigeration Division of the National Electrical Manufacturers' Association held in Hot Springs, Va., Tuesday, May 21, when Francis E. Neagle, legal counsel of the Association, explained the methods establishing rules of conduct for the industry through co-operative action.

Particular attention was given to five specific rules approved by the Federal Trade Commission which are already enforceable by law without reference to the Commission. Following are the five rules as stated in a digest issued by the National Electrical Manufacturers' Association:

**Practices Approved by The Federal Trade Commission.**

**Advertising**—The use of advertising that tends to mislead the purchasing public as to the nature, quality, or quantity of the products advertised is an unfair trade practice. (Motion Picture Industry No. 5, revised).

**Competitor Defamation of, or Disparagement of His Goods**—The defamation of a competitor by words or acts imputing to him dishonorable conduct, inability to perform contracts, or questionable credit standing, or the false disparagement of the grade or quality of his goods, is an unfair trade practice. (Wax Paper Industry No. 4).

**Competitor**—False or deceptive statements regarding policies or methods of, the making, causing or permitting to be made, or published any false or deceptive statements of or concerning the business policies or methods of a competitor, is an unfair trade practice. (Butter, eggs, cheese, and poultry industries No. 3).

*(Concluded on page 2, columns 2 and 3).*

## Public Utilities Look to Electric Refrigeration for Future Profits

### BIG DISPLAYS BY MANUFACTURERS IN SPOT LIGHT AT N. E. L. A. EXHIBITION

THE remarkable growth in electric refrigeration sales during the past year has impressed leading central station executives with the fact that this appliance represents the outstanding opportunity to develop revenue for electric service and maintain the rate of increase which has characterized the public utility industry. Experience has shown that the addition of an electric refrigerator in the home has the effect of doubling the normal consumption of electric current and at the same time giving the customer a new satisfaction and a real enthusiasm for electrical service. Now that practically all of the homes within reach of transmission lines are wired, the opportunity for additional revenue is limited to two fields: (1) New homes and apartments, (2) Increased use of electricity by present customers.

Two years ago at the annual convention and exhibition of the National Electric Light Association, electric refrigeration occupied the center of the stage. Manufacturing and distribution problems during that year retarded electric refrigeration development and resulted in some lessening of interest on the part of the utilities. During the past year, however the major problems have been met and solved and there is every indication of a renewed merchandising activity on a scale far in excess of any previous effort.

**650,000 Domestic Machines To Be Added to Lines in 1929**

The aggressive merchandising methods of central stations in a number of districts has focused attention on the relations between the public utilities and local dealers and the solution of this problem is the big job for the coming year. At the present rate of growth it appears that 650,000 domestic electric refrigerators will be added to central station lines during 1929.

Production plans by manufacturers point to a figure in excess of 1,000,000 units for 1930.

The public acceptance of electric refrigeration, the tremendous advertising by the manufacturers, and the activities of an army of salesmen created a situation which farsighted utility executives recognize must be reckoned with in planning plant capacity, distribution lines, and public policy for the future.

The coming convention of the National Electric Light Association in Atlantic City, the first week in June, will be the meeting ground at which the merchandising practices of central stations, as affecting electric refrigeration, will be studied intensively.

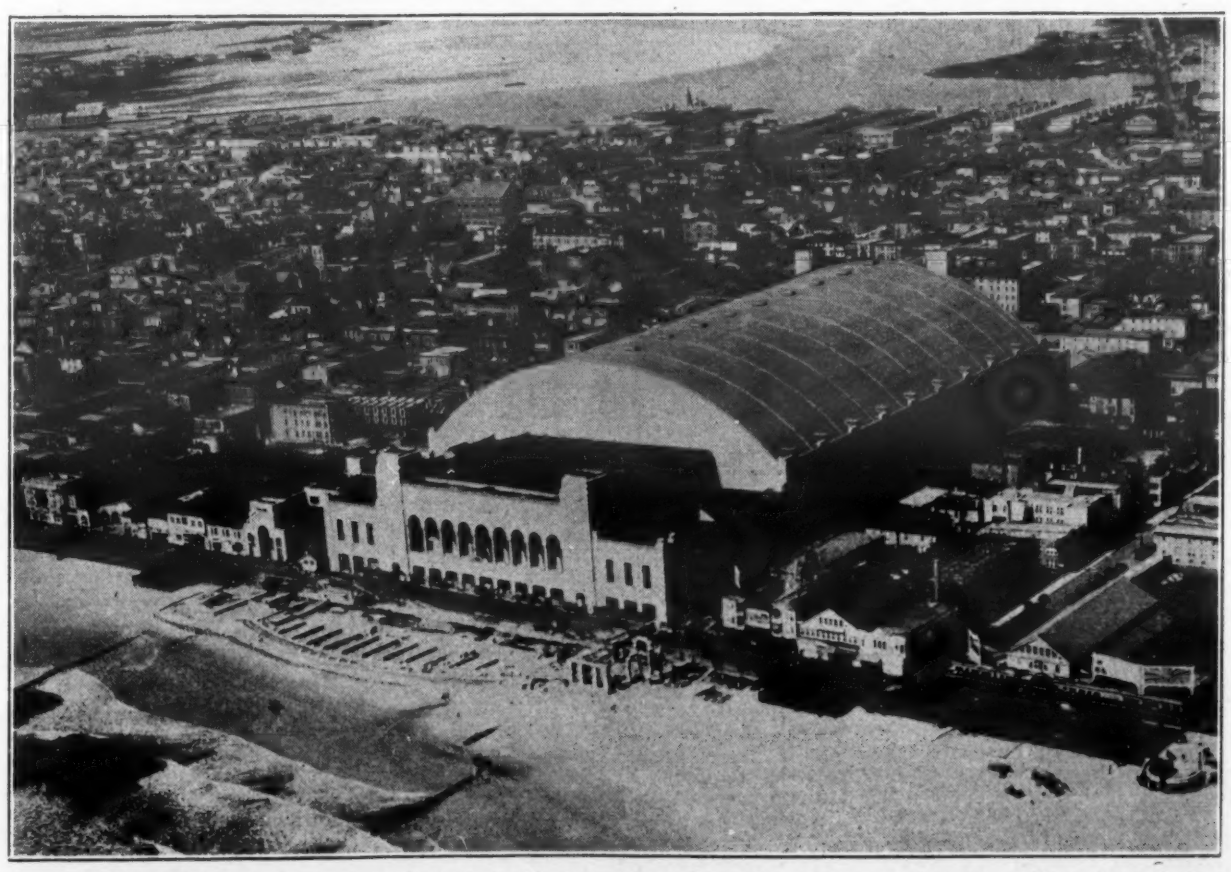
**Those Who Will Exhibit**

A partial list of exhibitors at the convention whose products or services are connected with the refrigeration industry includes Allen Bradley Co., Milwaukee, Wis.; Benjamin Electric Mfg. Co., Chicago, Ill.; Bohn Refrigeration Co., St. Paul, Minn.; ELECTRIC REFRIGERATION NEWS, Detroit; Century Electric Co., St. Louis, Mo.; Copeland Sales Co., Detroit; Corning Glass Works, New York, N. Y.; Electrical Testing Laboratories, New York, N. Y.; Franklin Air Compressor Corp., Norristown, Pa.; Frigidaire Corp., Dayton, Ohio; General Electric Co., Schenectady, N. Y.; International Nickel Co., New York, N. Y.; Kelvinator Sales Corp., Detroit; Leonard Refrigerator Co., Grand Rapids, Mich.; Savage Arms Corp., New York, N. Y.; Seeger Refrigerator Co., St. Paul, Minn.; Servel Sales Inc., Evansville, Ind.; Wagner Electric Corp., St. Louis, Mo., and the Welsbach Co., Gloucester City, N. J.

Charles F. Curtis, vice-president of the United States, together with Sir Esme Howard, British ambassador to the United States, and Don Alejandro Padilla Y Bell, Spanish ambassador, will take part in the dedication and opening of the Atlantic City auditorium. Preston S. Arkwright, president of the National Electric Light Association, will also take part in the dedication festivities.

The entertainment program includes a reception to President and Mrs. Arkwright on Monday evening. There will be dancing every evening in the ballroom of the new auditorium. Entertainment for the ladies attending the convention will include a golf tournament on Tuesday afternoon at the Seaview Golf Club and a card party on Wednesday afternoon at the Hotel Chelsea.

## Atlantic City's New Municipal Auditorium Where Refrigerator Displays Will Be Featured



**New $15,000,000 Atlantic City Municipal Auditorium where more than 200 manufacturers will feature displays of electrical equipment at the annual convention and exhibition of the National Electric Light Association.**

# MUNICIPAL UTILITY HEADS COOPERATIVE REFRIGERATOR DRIVE

### Los Angeles Department of Water and Power Initiates City Wide Campaign

A CAMPAIGN, based on the checking of the list of current consumers of the Los Angeles Department of Water and Power and the segregating of 60,000 households which are in a position to buy an electric refrigerator, was opened by the Department of Water and Power in Los Angeles, April 20.

The 60,000 homes are using enough electricity to suggest that they are in a position to buy an electric refrigerator, or enough to operate an electric refrigerator at the 2½ cent rate or the 2 cent minimum rate. The domestic rate for municipal electricity in Los Angeles is 5 cents a kilowatt hour for the first 50 kilowatt hours. All electricity consumed in excess of this is charged for at the rate of 2½ cents per kilowatt hour. Meter readings were used as a basis for Better Business Bureau acceptance.

Objectives of the campaign are to sell 3,000 electric refrigerators above the sales quotas set up by local distributors and dealers over a 9-month period; to gain the goodwill of consumers through emphasis of low municipal rates; to promote the appliance display room and its activities, and to popularize year-round refrigeration and sell more ice boxes and in turn sell more power to ice manufacturers.

Every dealer reported increased sales during the first three weeks of the campaign and one of the largest distributors "sold out" of small sizes. During this time approximately 1,000 recipe books were distributed and the appliance display room of the company had an increase of 1,500 per cent in number of daily visitors asking information on electric refrigeration. An Electric Refrigeration Dealers' Association has been formed since the opening of the campaign.

The company estimates that 90 per cent of the installations of refrigerators by dealers and distributors in Los Angeles will cost the consumer $1.50 a month for current.

The company considers that the electric refrigerator is the most logical electric appliance to add to serve the electric system by creating a constant load and filling in the valleys of the demand curve.

The campaign includes five months of newspaper advertising, two months radio broadcasting every day, one month outdoor advertising, and nine months direct mail.

Dealers and distributors in Los Angeles are cooperating with the campaign and will tie up their own advertising with that of the Department of Water and Power. Those co-operating and the units represented are the George Belsey Co., General Electric; Pacific Zerozone Co., Zerozone; Collins Kelvinator Co., Kelvinator; Frigidaire Sales Corp., Frigidaire; Copeland Calif. Sales Corp., Copeland; Electro-Kold Sales Corp., of Los Angeles, Electro-Kold; Belding-Hall Pacific Corp., Belding-Hall; O'Keefe & Merritt Co., O'Keefe & Merritt; Norge Pacific Co., Norge. Department and furniture stores taking part are Parmalee-Dohemann Co., Barker Bros., May Co., Broadway Department Store, Walkers Inc., Sullivan Co., and Eastern Outfitting Co.

All display advertising is built around the slogan "$1.50 or less a month to Operate an Electric Refrigerator."

It is estimated that more than a million readers will be reached every week of the campaign. Department stores are planning special sales and display events.

Complete advertising schedule is being carried by the Los Angeles Herald, Los Angeles Times, Los Angeles Examiner, Los Angeles Express, Los Angeles Record, Hollywood Citizen, Hollywood News, and the San Pedro News Pilot.

Sixty community newspapers are carrying advertising twice a month and five magazines once a month.

Nine mailing pieces, once a month, are being sent to the prospect list taken from the consumers of the company. Attractive four-page letters describe the special features of leading types of equipment and confirm the low operating cost. Each describes a particular make, and totals 540,000 mailing pieces.

A recipe book of 150 recipes for use with the electric refrigerator is being given through coupons in newspaper and radio requests.

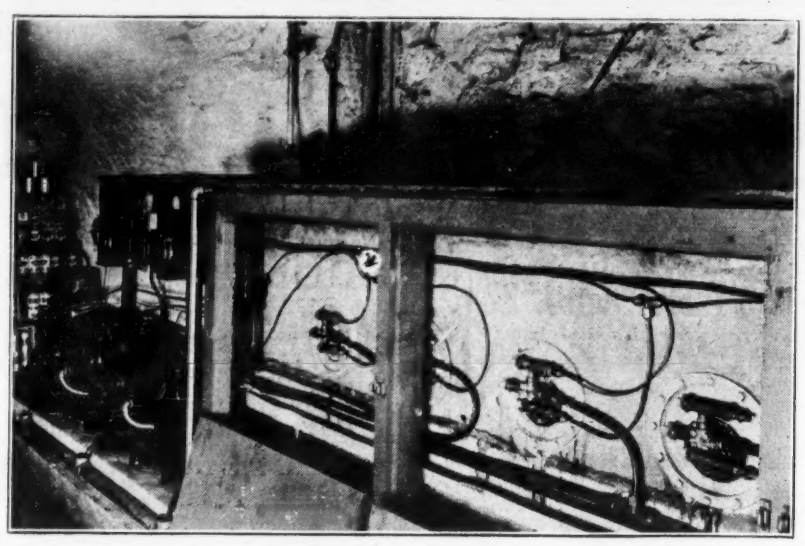
Cooking school classes featuring electrically frozen foods and proper food preservation will be given in three different groups. Appliance room demonstrations with department experts giving features of each make, prices and operating costs will be used. No sales are made from the display room.

Display cards are being furnished dealers and distributors by the Department of Water and Power.

Eight Los Angeles broadcasting stations are making rate announcements every day for two months. Many of these are during household economic hours.

Forty-six outdoor advertising posters, placed on prominent thoroughfares in the city feature the low operating cost of the electric refrigerator.

# Kelvinator Equipment Keeps Water at Proper Temperatures in Bakery



**Kelvinator Installation In Feickert Bakery, Belleville, Ill.**

Kelvinator equipment has been installed in the plant of the Feickert Bakery Co. in Belleville, Ill., by the Illinois Power & Light Corp. The photograph above shows the installation of the condensing units and water cooling tank in the basement.

Three No. 5574 WH water cooled condensing units are connected to six 44 tube No. 4618 evaporators which are installed in a 300 gallon water tank that supplies water for dough mixing purposes. The water tank is equipped with an automatic inlet water control valve to maintain a uniform level of water in the tank and also with an overflow for safety.

A circulating pump forces the water through a pipe leading over the water weighing tank and back to the storage tank. This permits water to be supplied at the lowest possible temperature without freezing up the tank. This is accomplished by circulating the water through the tank while the units are in operation and during the time that water is being used in the bakery.

The circulating water line is insulated with 1½-inch Armstrong cork, while the water cooling tank is insulated with 3 inches of Armstrong cork. A three way water valve is used on the water line leading directly over the weighing tank, so that when the valve is opened to supply the weighing tank, the circulating line is automatically shut off, and all the water lifted by the pump is run into the weighing tank. A water line thermometer is installed near this valve so that the temperature of the water may be watched by the person in charge of the mixing.

# J. S. TRITLE ADVANCED BY WESTINGHOUSE CO.

J. S. Tritle, formerly general manager merchandising department, Westinghouse Electric & Manufacturing Co., has been elected vice president in charge of all manufacturing of the company. C. D. Taylor is manager of the refrigeration department. The Westinghouse Co. is making plans to put a new electric refrigeration unit on the market this fall.

# Refrigeration Division, N.E.M.A. Studies Unfair Trade Practices

*(Concluded from page 1, column 3 and 4)*

**Contracts**—Inducing breach of, inducing or attempting to induce a breach of contract between a competitor and his customer during the term of such contract is an unfair method of competition. Whenever notice of the existence of a contract is brought to the attention of any person in any way he should promptly discontinue all efforts which might induce the contracting party to break such contract. (Wax paper No. 1, revised).

**Patents, Threats of suit for infringement**—The circularization of threats of suit for infringement of patent or trademark among customers of a competitor, not made in good faith but for the purpose of harassing and intimidating customers is an unfair trade practice. The owner of a patent or trademark should, in fairness, deal strictly with the alleged original infringer rather than attempt to intimidate his customers. (Wax paper industry, No. 5).

Reports were received from the Technical and Warranty committees. Approval was given to a questionnaire for the collection of quarterly statistics on sales of electric refrigeration equipment by manufacturers. Total figures will be made public, but those of the individual companies reporting will not be divulged.

Tentative arrangements were made for co-operation with the Department of Commerce in collecting quarterly figures from dealers showing stock sales. This plan will not be put into operation until the latter part of this year. ELECTRIC REFRIGERATION NEWS will undertake the task of compiling a list of all dealers in the country and will make this information available to the Department of Commerce.

The next meeting of the Refrigeration Division of the National Electrical Manufacturers Association will be held in Cleveland, the second week in July. The exact date will be announced later.

The following attended the Hot Springs meeting:

Absopure Refrigeration Corporation, Detroit, Michigan, H. C. Hayes.

Climax Electrical Refrigeration Company, Chicago, Illinois, E. B. Mallory.

Copeland Products, Inc., Detroit, Michigan, E. W. Hadden and Glenn Muffly.

Holmes Products, Inc., New York, N. Y., John F. Plummer.

Kelvinator Corporation, Detroit, Michigan, George W. Mason.

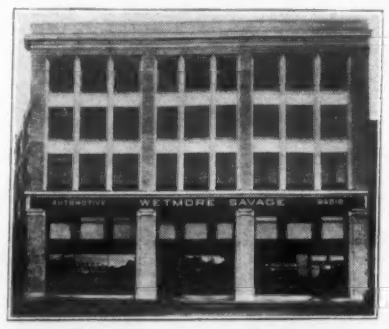
General Electric Company, Cleveland, Ohio, T. K. Quinn.

Westinghouse Electric & Mfg. Company, Mansfield, Ohio, Carl D. Taylor.

Others present were: S. N. Clarkson, Alfred Pfalz and Francis E. Neagle of the National Electrical Manufacturers' Association; Marshall T. Jones of the Department of Commerce, Washington, D. C., and F. M. Cockrell of ELECTRIC REFRIGERATION NEWS, Detroit, Mich.

# WETMORE-SAVAGE TO DISTRIBUTE NORGE

Norge Corporation, Detroit announces the appointment of Wetmore-Savage, Boston, Mass., for many years one of New England's foremost distributing organizations as distributors for Norge electric refrigeration equipment. This concern which has been operating for over 20 years has some 3,000 dealers handling electrical, automotive and radio




**Home of Wetmore-Savage, Recently Appointed Norge Distributors**

equipment. Of these, approximately 850 Crosly radio dealers will now handle Norge equipment. J. S. Waddell, is chairman of the board of Wetmore-Savage organization.

Commenting upon this appointment K. M. Schaefer, sales manager of Norge Corporation said, "The establishment of this connection impresses me as being an indication of the constantly increasing acceptance by the established distributing organizations of the country, of the future to be found in the electric refrigeration industry."

# SAYS COOPERATIVE COMPETITION WILL BENEFIT INDUSTRY

THAT cooperative competition is a merchandising practice of the utility company through which it justifies its place of leadership in pioneering and promoting electric appliance service, is the belief expressed by C. Ernest Greenwood in an article entitled, "Cooperative Competition," appearing in the current issue of the *N. E. L. A. Bulletin*. "This competition," he says, "is a live and let live policy put into practice and will ultimately build a greater and sounder appliance business in the community."

As early as 1912 the utility companies, he pointed out, desired to help the appliance dealer. In three conferences held during the past two years between leaders in the principal electric and dealer trade associations a plan of merchandising principles was drawn up. It was found that the efforts of the power companies formed the only continuous means of promoting the sale of electrical appliances. Dealer dissatisfaction, which has expressed itself in numerous communities, indicated that there was an element of incompatibility between the public interest and the dealer interest. In promoting the responsibility for electric service the power company strives to promote the welfare of the whole trade.

"Everyone connected with our company is a firm friend of ELECTRIC REFRIGERATION NEWS and reads it religiously."—P. H. Sawyer, Midwest Refrigeration Co., Des Moines, Iowa.

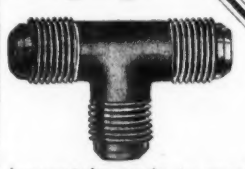
TRADE
EXTRA DRY ESOTOO
MARK
THE PUREST
SULPHUR DIOXIDE
Analysis Guaranteed
We have an agent, with our product in stock, near you
Wire us where we can serve you
VIRGINIA SMELTING CO., WEST NORFOLK, VA.
F. A. Eustis, Secretary 131 State St., BOSTON 2 Rector St., NEW YORK

Three Aids To Better Joints

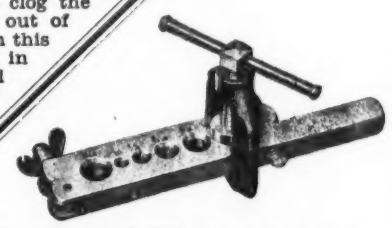
Imperial Tube Cutter

Here is a highly efficient tool for cutting copper, brass, block tin and lead tubing. It takes all sizes of tubing from ⅛" to ⅝" and makes a right-angle cut, quickly and cleanly, leaving no burrs or chips to clog the line. The tubing does not become out of round as when put in a vise. When this tool is used, tubing can be cut in half the time required by old methods and a far better job results. No. 94-F Tube Cutter, each $2.50

Brass Forgings



Accurately made to meet all the requirements of Iceless Refrigerator Manufacturers. Will not leak. Let us quote on your requirements.



Imperial Flaring Tool

The Imperial Flaring Tool gives the proper flare and taper to the tubing for making up joints. A perfect flare means a tight joint, and this tool does the work in the least time and with the utmost simplicity. No loose dies—no vise necessary.
No. 93-F takes tubing sizes 7/16", 3/16", 1/4", 5/16", 3/8", and 1/2". Each $3.00
No. 95-F takes tubing sizes 1/4", 5/16", 3/8", 1/2" and 5/8", Each $4.00

IMPERIAL BRASS MFG. CO., 565 So. Racine Ave., Chicago, Ill.

The EBCO ELECTRICAL COOLER FOUNTAIN

MODEL C-318 SI

FOR MILLS AND FACTORIES

—over 600 in Carnegie Steel Mills alone.

—special insulation features meet any extreme condition of heat and cold.

—individual service to every department.

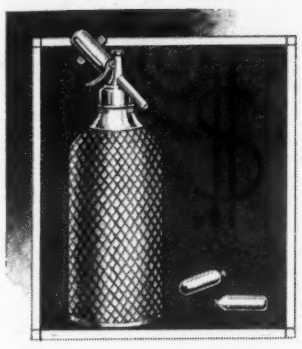
—very economical and most efficient water cooler for industrial use.

Capacity 10 to 17 gal. per hour.
Cooled from 80° to 50° F.

WRITE for Catalog

The D. A. EBINGER SANITARY MFG. CO
194 Lucas Street Columbus, Ohio
Manufacturers also of Ventilated Closets, Urinals, Wash Sinks, and Steel Enclosures for Toilet Rooms

# SPARKLETS PLAY BIG PART IN TOLEDO FRIGIDAIRE SALE



SELLING Frigidaires in Toledo became a faster, more profitable, more economical proposition with the introduction of Sparklets into the campaign as a demonstration and premium attraction.

## *Eight Hundred Frigidaires Sold in 60 Days!*

Featured in the advertising, Sparklets brought new people into the store, and helped this company to sell *more than eight hundred Frigidaires in less than 60 days!* Naturally Toledo Edison Company is continuing its intensive efforts in June. According to observers, the campaign seems to be gathering momentum as it progresses, with absolutely no indication of slacking.

## *Sparklet Bulb Sales will Absorb Service Costs where Syphons Used as Premiums*

When service men visit homes where you have already placed Sparklet Syphons, instruct them to remind the housewife to check up on the domestic Bulb supply. Profits on this item have, in many instances, absorbed the entire cost of servicing the refrigerators in use.

## *Hold a Refrigerator Demonstration—Let Sparklets provide the Action*

Arrange to pull more people into your sales rooms than ever before with a Special Ice Cream Demonstration. Sparklets will provide the action and interest - holding roles, while the prospects become convinced of the desirability of your product.

## *This New Book—Individualized to Your Business—Tells How—Write*

Within its covers are countless suggestions for increasing your refrigerator sales . . . Definite plans for campaigns . . . Complete instructions for holding an Ice Cream Demonstration . . . A plan for advertising . . . Literature . . . Signs . . . Stationery . . . Letters . . . Invitations . . . and a real plan for getting prospects!

# SPARKLETS

## INCORPORATED

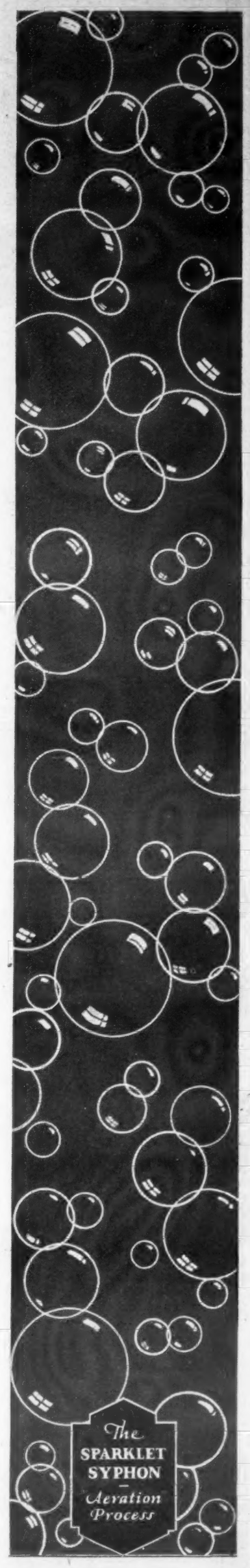
NEW YORK, 19 West 44th Street, *Headquarters*

BOSTON, 1105 Statler Building
CHICAGO, 900 Rush Street
SAN FRANCISCO, 277-285 Seventh Street
ST. LOUIS, Victoria Building
ATLANTA, 411 Norris Building
DALLAS, Allen Building

Purveyors of the Sparklet Syphon, Sparklet Bulbs and Sparklet Syrups. Discoverers of the Sparklet "Aeration" method of making real ice cream in the freezing tray, which has been endorsed and approved by the following:

*Manufacturers:* General Electric, Servel, Kelvinator, Zerozone, Copeland, Absopure, Welsbach, Electro-Kold, Holmes, Universal, Norge

*Bureaus:* Good Housekeeping Institute, Priscilla Proving Plant, Delineator Home Institute, Household Searchlight, New York Tribune Institute, Shrine Service



Thursday and Friday are Frigidaire Days
at the Blade Cooking School
Be Sure to Attend—Sc
Frigidaire C
The Toledo
Come to the Demonstration
Learn How You Can Make This
New Ice Cream at Home!
Pretty School Ice Cream Uniform
The Toledo
Within Weather Is Close at Hand
Let Frigidaire Protect Your Food and Health
$7.50 Sparklet Syphon Free
Two Years to Pay
The Toledo Edison Co.
A New Model Frigidaire for Only $189.50
A Liberal Allowance for Your Old Ice Box
The Toledo Edison Co.
Come in and See Ice Cream Made Quickly Without Stirring
The Toledo Edison Co.
Now—A Frigidaire
with the new Cold Control
$189.50
Come in and See Ice Cream Made Without Stirring
Special Demonstration of Frigidaire and the Sparklet Syphon
$7.50 Sparklet Free
The Toledo Edison Co.
A Frigidaire for Only $189.50
The Toledo Edison Co.
A Frigidaire for Only $189.50
A New Frigidaire any family can afford
The Toledo Edison Co.
Buy a Frigidaire Now—and
Come to Our Main Store Today
Learn How to Make Ice Cream This New Way
The Toledo Edison Co.
Trade in your ice box on the New Frigidaire with cold control
A $7.50 Sparklet Syphon Free
The Toledo Edison Co.

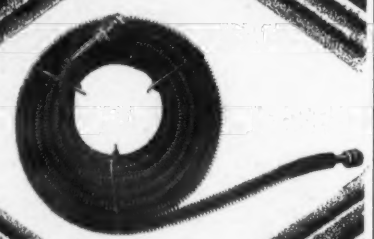
Progressive Distributors and Dealers are lowering their overhead and increasing sales because they display and sell SILVERICE.

Illustrated folder and price list sent upon request.

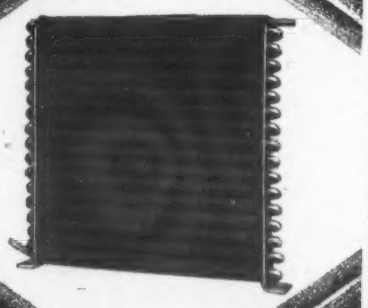
**Silverice, Inc.**
280 Broadway
NEW YORK



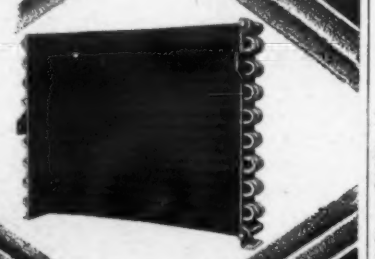
**McCORD BUILT CONDENSERS**



Type "B" Spiral Fin Continuous Coil McCORD CONDENSER
The popular "bee hive" condenser designed to occupy a minimum of space. It is installed so that all air currents created by the fan pass over the coils giving great capacity with a small amount of tubing.



Type "A" Double Row Spiral Fin McCORD CONDENSER
Adapted to the larger refrigerating units used commercially and for apartment house installations. This condenser is made up of seamless, bright annealed tubing with continuous corrugated spiral fin that has made McCord condensers leaders in the field.



Type "A" Triple Row Continuous Tube McCORD CONDENSER

McCORD RADIATOR & MFG. CO
DETROIT MICH.


# Business Program for the 52nd N. E. L. A. Convention, Atlantic City, N. J., June 3-7

P. S. Arkwright, chairman; M. S. Sloan, vice-chairman; W. A. Jones, vice-chairman; J. F. Owens, vice-chairman; Marshall E. Sampsell, vice-chairman

NOTE—This Program is in tentative state only and will be augmented before the convention. Slight changes may also be made in time of a few program events.

### First General Session
**Tuesday, June 4th, 9:45 A. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

9:45 OVERTURE.
10:00 WELCOME TO ATLANTIC CITY, Honorable Anthony M. Ruffu, Mayor, Atlantic City, N. J.
10:15 PRESIDENT P. S. ARKWRIGHT, Georgia Power Co., Atlanta, Ga.
10:40 TREASURER P. S. YOUNG, Public Service Electric & Gas Co., Newark, N. J.
10:50 MANAGING DIRECTOR PAUL S. CLAPP.
11:05 REGULATION. W. J. Hagenah, Vice-President, Byllesby Engineering & Management Corp., Chicago, Ill.
11:30 (TALKIE-MOVIE).
11:45 PUBLIC RELATIONS NATIONAL SECTION. J. F. Owens, Chairman, Oklahoma Gas & Electric Co., Oklahoma City, Okla.
12:05 (TITLE OF ADDRESS TO BE ANNOUNCED). A. W. Robertson, Chairman of Board, Westinghouse Electric & Manufacturing Co., New York, N. Y.
12:30 CONSTITUTION AND BY-LAWS COMMITTEE. R. F. Pack, Chairman, Northern States Power Co., Minneapolis, Minn. ELECTION—Constitutional Revision Committee.
12:35 ELECTION — NOMINATING COMMITTEE.
12:40 ADJOURNMENT.

### Second General Session
**Wednesday, June 5th, 9:45 A. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

9:45 OVERTURE.
10:00 ANNOUNCE — MEMORIALS COMMITTEE.
10:05 THE 1929 EXHIBITION. E. W. Goldschmidt, Wagner Electric Corp., New York, N. Y.
10:15 ENGINEERING NATIONAL SECTION. E. C. Stone, Chairman, Duquesne Light Co., Pittsburgh, Pa.
10:35 ELECTRIFICATION OF RAILROADS. Britton I. Budd, President, Public Service Co. of Northern Illinois, Chicago, Ill.
10:55 RAILROADS AND ELECTRIFICATION. George D. Gibbs, Consulting Engineer, Gibbs & Hill, New York, N. Y.
11:20 (MOVIE-TALKIE).
11:35 COMMERCIAL NATIONAL SECTION. Marshall E. Sampsell, Chairman, Central Illinois Public Service Co., Chicago, Ill.
11:55 (SUBJECT TO BE ANNOUNCED). M. S. Sloan, President, The New York Edison Co., New York, N. Y.
12:15 SCIENCE AND PROGRESS IN THE INDUSTRIES. J. J. Carty, Vice-President, American Telephone & Telegraph Co., New York, N. Y.
12:35 ADJOURNMENT.

### Third General Session
**Thursday, June 6th, 9:45 A. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

9:45 OVERTURE.
10:00 PRIZE AWARDS. W. H. Onken, Jr., Electrical World, New York, N. Y.
10:15 INTRODUCTION BY PRESIDENT P. S. ARKWRIGHT OF MR. JOHN W. LIEB, WHO WILL PRESIDE FOR THE REMAINDER OF THE SESSION.
10:35 (TITLE OF ADDRESS TO BE ANNOUNCED). Charles L. Edgar, President, The Edison Electric Illuminating Co., Boston, Mass. INTRODUCTION OF Henry Ford, President, Ford Motor Co., Detroit, Mich.
11:10 (TITLE OF ADDRESS TO BE ANNOUNCED). Thomas N. McCarter, President, Public Service Electric & Gas Co., Newark, N. J. INTRODUCTION OF Thomas A. Edison.
11:40 THOMAS A. EDISON. (Talkie-Movie).
12:00 (TITLE OF ADDRESS TO BE ANNOUNCED). Berton Braley, Author, New York, N. Y.
12:30 ADJOURNMENT.

### Fourth General Session
**Friday, June 7th, 9:45 A. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

9:45 OVERTURE.
10:00 MEMORIALS. W. H. Onken, Jr., Electrical World, New York, N. Y.
10:10 ACCOUNTING NATIONAL SECTION. J. F. Ford, Chairman, The Philadelphia Electric Co., Philadelphia, Pa.
10:30 RURAL ELECTRIFICATION. J. R. Howard, Past-President, American Farm Bureau Federation, Clemens, Iowa.
10:55 (TALKIE-MOVIE).
11:10 INDUSTRIAL DEVELOPMENT IN THE UNITED STATES. J. L. Madden, Vice-President, Metropolitan Life Insurance Co., New York, N. Y.
11:35 THE PUBLIC RIGHT AS TO ELECTRIC RATES. W. L. Ransom, Whitman, Ransom, Coulson & Goetz, New York, N. Y.
12:00 BERNARD F. WEADOCK, Special Counsel before Federal Trade Commission, New York, N. Y.
12:25 REPORT — CONSTITUTIONAL REVISION COMMITTEE.
12:30 VOTE — CONSTITUTIONAL AMENDMENTS PROPOSED.
12:35 REPORT—NOMINATING COMMITTEE.
12:45 ELECTION — OFFICERS AND MEMBERS EXECUTIVE COMMITTEE.
1:00 ADJOURNMENT.

## PUBLIC POLICY COMMITTEE SESSION

R. H. BALLARD, Chairman
W. W. FREEMAN, Vice-Chairman
**Thursday, June 6th, 8:30 P. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

8:30 B. A. ROLFE AND ORCHESTRA.
8:55 MEETING CALLED TO ORDER. W. W. Freeman, Vice-Chairman.
9:00 CHARLES A. COFFIN PRIZE COMMITTEE, P. S. Arkwright, Chairman, Georgia Power Co., Atlanta, Ga. PRESENTATION—CHARLES A. COFFIN AWARD.
9:25 B. A. ROLFE AND ORCHESTRA.
9:30 PUBLIC POLICY COMMITTEE. W. W. Freeman, Vice-Chairman, Columbia Gas & Electric Corp., New York, N. Y.
10:00 B. A. ROLFE AND ORCHESTRA.
10:10 FRIEDA HEMPEL, SOPRANO.
10:20 ALBERT SPALDING, VIOLINIST.
10:30 B. A. ROLFE AND ORCHESTRA. (Broadcasting starts—WEAF Red Network.)
10:35 AMERICA'S FIFTY YEARS OF ALADDIN. Julius H. Barnes, President, Barnes-Ames Co., New York, N. Y.
10:55 B. A. ROLFE AND ORCHESTRA.
11:00 FRIEDA HEMPEL, SOPRANO.
11:10 B. A. ROLFE AND ORCHESTRA.
11:15 ALBERT SPALDING, VIOLINIST.
11:25 B. A. ROLFE AND ORCHESTRA.
11:30 ADJOURNMENT.

## Enthusiastic Leader

**P. S. ARKWRIGHT**
President, Georgia Power Co., Atlanta, Ga.

## ACCOUNTING SECTION SESSION

J. F. FORD, Chairman.
W. R. EMERSON, Vice-Chairman.
FRANKLYN HEYDACKE, Vice-Chairman.
J. H. LOBBAN, Vice-Chairman.
**Tuesday, June 4th, 3:00 P. M.**
**Meeting Room No. 2—Westminster Hall—Chelsea Hotel, Boardwalk at Morris Avenue**

3:00 J. F. FORD, CHAIRMAN, Accounting National Section, The Philadelphia Electric Co., Philadelphia, Pa. ANNOUNCE—NOMINATING COMMITTEE.
4:50 REPORT—NOMINATING COMMITTEE.
5:00 ADJOURNMENT.

## COMMERCIAL SECTION SESSION

MARSHALL E. SAMPSELL, Chairman.
FRANK D. PEMBLETON, Vice-Chairman.
T. O. KENNEDY, Vice-Chairman.
V. M. F. TALLMAN, Vice-Chairman.
**Wednesday, June 5th, 2:45 P. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

2:45 OVERTURE.
3:00 MARSHALL E. SAMPSELL, CHAIRMAN, Commercial National Section, Central Illinois Public Service Co., Chicago, Ill. ANNOUNCE—NOMINATING COMMITTEE.
3:10 LIGHTING BUREAU. T. O. Kennedy, Chairman, The Ohio Public Service Co., Cleveland, Ohio.
3:25 POWER BUREAU. V. M. F. Tallman, Chairman, Charles H. Tenney & Co., Boston, Mass.
3:40 MERCHANDISING BUREAU, Frank D. Pembleton, Chairman, Public Service Electric & Gas Co., Newark, N. J.
3:55 SPEAKERS AND SUBJECTS TO BE ANNOUNCED.
4:30 INDUSTRY SALES CONFERENCE.
4:50 AWARD OF PRIZES—K. W. H. CONTEST.
5:05 AWARD OF FEDERAL PRIZE.
5:15 REPORT—NOMINATING COMMITTEE.
5:20 ADJOURNMENT.

## ENGINEERING SECTION SESSION

E. C. STONE, Chairman.
A. D. BAILEY, Vice-Chairman.
THOMAS SPROULE, Vice-Chairman.
NICHOLAS STAHL, Vice-Chairman.
**Tuesday, June 4th, 2:45 P. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

2:45 OVERTURE.
3:00 E. C. STONE, CHAIRMAN, Engineering National Section, Duquesne Light Co., Pittsburgh, Pa.
3:15 ANNOUNCE — NOMINATING COMMITTEE.
3:20 SHALL WE GROW LIKE TOPSY OR ACCORDING TO PLAN? A. C. Marshall, Vice-President, The Detroit Edison Co., Detroit, Mich.
3:50 ENGINEERS AND ENGINEERS. F. R. Phillips, Vice-President, Duquesne Light Co., Pittsburgh, Pa.
4:20 DEVELOPMENT OF ELECTRICAL STANDARDS. L. L. Elden, The Edison Electric Illuminating Co., Boston.
4:50 REPORT—NOMINATING COMMITTEE.
5:00 ADJOURNMENT.

## PUBLIC RELATIONS SECTION SESSION

J. F. OWENS, Chairman.
E. A. BARROWS, Vice-Chairman.
LEAVITT L. EDGAR, Vice-Chairman.
D. C. GREEN, Vice-Chairman.
**Thursday, June 6th, 2:45 P. M.**
**Meeting Room No. 1—Ballroom—Atlantic City Auditorium**

2:45 OVERTURE.
3:00 J. F. OWENS, CHAIRMAN, Public Relations National Section, Oklahoma Gas & Electric Co., Oklahoma City, Okla. ANNOUNCE—NOMINATING COMMITTEE.
3:15—AWARDS—FORBES MAGAZINE PUBLIC RELATIONS CONTEST. B. C. Forbes, Forbes Magazine and Hearst Publications, New York, N. Y.
3:25 SPEAKER AND SUBJECT TO BE ANNOUNCED.
3:55 MOVIE-TALKIE — "ROMANCE OF POWER"—C. M. Ripley.
4:25 SUBJECT AND SPEAKER TO BE ANNOUNCED.
4:55 REPORT—NOMINATING COMMITTEE.
5:00 ADJOURNMENT.

## G. D. KOBICK JOINS G. E. APARTMENT HOUSE STAFF

J. J. Donovan, manager of the apartment house division of the General Electric Co., refrigeration department, announces that George D. Kobick is now associated with that department in the capacity of apartment house specialist.

Mr. Kobick has had several years of experience in refrigeration work and comes to the refrigeration department from the Ochiltree Electric Co., General Electric refrigerator distributors in Pittsburgh, Pa. He will assist in apartment house organization work among distributors.

## PHILADELPHIA A.S.R.E. ORGANIZES; ELECTS H. I. LEWIS CHAIRMAN

THE Philadelphia section of the American Society of Refrigeration Engineers was organized May 10, 1929, at a meeting held at the Engineers' Club, 1317 Spruce St. Announcement was made at a meeting April 5, that the charter had been granted by the parent organization.

A dinner was held at 6:15 followed by a business meeting. H. I. Lewis, manager, American Engineering Co., was elected chairman; A. L. McMillan, supervisor of the Electric Refrigeration Division, Philadelphia Electric Co., was elected vice chairman, and Cyril Leech, Mack Machine Co., was elected secretary and treasurer.

W. A. Bornemann, Carrier Engineering Corp., gave a paper on "Application of Refrigerating Units to Air Conditioning." A paper on "Application of Motors and Controls in Refrigeration" was read by D. W. McLenegan, General Electric Co., Schenectady, N. Y.

## REVISION IN CORK TARIFF CONSIDERED

IF THE proposed tariff on cork products now in the hands of the Ways and Means Committee of the House of Representatives is adopted, American manufacturers will be aided in their competition with producers in other countries.

Some time ago the House of Representatives asked for an investigation of the cork situation and requested comparative prices from different countries producing it in quantities. When the revised tariff was proposed, the investigation was dropped but it is understood that in case no action is taken regarding the change in rate the first investigation will be completed.

The U. S. Tariff Commission is now waiting for additional information and data from the House.

The present tariff appears below, followed by the proposed tariff which increases the duty.

### Present Tariff

Par. 1412. Cork bark, cut into squares, cubes, or quarters, 8 cents per pound; stoppers over three-fourths of one inch in diameter, measured at the larger end, and disks, wafers and washers over three-sixteenths of one inch in thickness, made from natural cork bark, 20 cents per pound; made from artificial or composition cork, 10 cents per pound; stoppers, three-fourths of one inch or less in diameter, measured at the larger end, and disks, wafers, and washers, three-sixteenths of one inch or less in thickness, made from natural cork bark, 25 cents per pound; made from artificial or composition cork, 12½ cents per pound; cork, artificial, commonly known as composition or compressed cork, manufactured from cork waste or granulated cork, in the rough and not further advanced than in the form of slabs, blocks, or planks, suitable for cutting into stoppers, disks, liners, floats, or similar articles, 6 cents per pound; in rods or sticks suitable for the manufacture of disks, wafers, or washers, 10 cents per pound; granulated or ground cork, 25 per centum ad valorem; cork insulation, wholly or in chief value of cork waste, granulated or ground cork, in slabs, boards, planks, or molded forms; cork tile; cork paper, and manufactures, wholly or in chief value of cork bark or artificial cork and not specially provided for, 30 per centum ad valorem.

### Proposed Tariff

Par. 1512. Cork bark, cut into squares, cubes, or quarters, 8 cents per pound; stoppers composed wholly or in chief value of cork, over three-fourths of one inch in diameter, measured at the larger end, 25 cents per pound; three-fourths of one inch or less in diameter, measured at the larger end, 31 cents per pound; perforated or hollow corks, commonly or commercially known as shell corks, 75 cents per pound; perforated cork penholder grips, $2 per pound; disks, wafers, and washers, three-sixteenths of one inch or less in thickness, made from natural cork bark, 25 cents per pound; if made from artificial, composition, or compressed cork, 12½ cents per pound; cork in the rough and not further advanced than slabs, blocks, planks, rods, sticks or similar forms, 10 cents per pound; manufactures wholly or in chief value of artificial, composition, or compressed cork, finished or unfinished, not specially provided for, 16 cents per pound; clean, refined, purified, granulated, or ground cork, weighing not over six pounds per cubic foot uncompressed, 3 cents per pound; all other ground, granulated, or regranulated cork, 1 cent per pound; cork insulation, wholly or in chief value of cork, cork waste, or granulated or ground cork, in blocks, slabs, boards, or planks, 2¾ cents per board foot; cork pipe coverings, cork fitting covers, and cork lags, wholly or partly manufactured, coated or uncoated, 5 cents per pound; cork tile in the rough or wholly or partly finished, over three-eights of one inch in thickness, 6 cents per pound; three-eighths or less in thickness, 10 cents per pound; cork paper, 30 per centum ad valorem; and manufactures wholly or in chief value of cork bark or cork, not specially provided for, 45 per centum ad valorem.

## C. J. ABBOTT APPOINTED WORKS MANAGER OF HOLMES PRODUCTS

C. J. Abbott has been appointed works manager of the Bridgeport, Conn., plant of Holmes Products, Inc. Mr. Abbott comes to the electric refrigeration industry from the Pontiac plant of the Oakland Motor Car Co. He will have complete charge of production of the new Holmes electric refrigerator.

# CENTRAL STATION MERCHANDISING METHODS

## CENTRAL STATION IS DEVELOPING MARKET FOR BENEFIT OF ALL

NORTHERN STATES POWER COMPANY
Minneapolis, Minn.
May 14, 1929.

Electric Refrigeration News,
Detroit, Michigan.

The criticisms of merchandise practices and policies of central station companies made by Merchant & Evans Company would, if true, mean that these practices and policies were at variance with the Declaration of General Merchandising Principles subscribed to by the National Electric Light Association, in conjunction with six other associations representing the majority of retail outlets handling electrical goods.

Therefore it would seem that the criticism resolves itself into a matter which should be very simple of solution. It must be that central stations are not living up to the principles they have subscribed to, or else, if they are living up to these principles, which have been subscribed to as satisfactory to virtually all retail outlets, then the Merchant & Evans Company is dissatisfied with practices and policies which are thoroughly satisfactory to virtually all manufacturers and retailers of electrical goods.

If central stations are not living up to the declaration of principles to which the N. E. L. A. subscribed, it should be a simple matter to effect a remedy.

Naturally, subscribing to these principles by the various associations did not bind individual companies, but it nevertheless represents the opinions and the practices of the great majority of central stations and retail outlets, and any individual company disagreeing with these principles is the exception and should be treated as such, and I am sure the industry as a whole would be glad to offer the utmost co-operation in an endeavor to effect an understanding.

Likewise, if the individual manufacturer disagrees with this declaration of merchandising principles it is equally safe to assume that he is out of line with the feeling of manufacturers and retailers in general.

I think it is safe to assume that no such feeling exists throughout the country as a whole, and that the manufacturer's criticism pretty much represents not much more than an individual instance on his part and on the part of some particular central station company.

Taken as a whole throughout the country, central station companies are merchandising electric refrigeration in competition with numerous outlets in the same territory, and are endeavoring to develop the market to the benefit of all outlets. A retailer who could succeed in merchandising his product is succeeding to a greater degree on account of central station activities.

The same is true of manufacturers. There are, of course, plenty of merchants and manufacturers who will not succeed regardless of the merchandising policies and practices that may be pursued by any particular central station company.

H. E. YOUNG,
General Sales Manager.

## DISTRIBUTOR SAYS CENTRAL STATIONS' POLICIES ARE OKEY

A. G. RIDDICK, INC.,
Distributor
General Electric Refrigerator,
Jackson, Missippi
May 16, 1929.

Electric Refrigeration News,
Detroit, Michigan.

With reference to the editorial and item in issue of the Electric Refrigeration News regarding the accusation made by the Merchant & Evans Company on the Philadelphia Electric Company, wish to say that I agree with you most heartily.

During the past few years the Central Stations have been quite active in developing the merchandising field. Until they became interested in the merchandising, we had never had class rates, which made it possible for the sale of major appliances in large volume. When a Central Station finds that by making a reduced or special rate for a class of business they can readily increase the volume and sale of merchandising in that particular line, they are quick to do so. If they were not actively engaged in merchandising they would not understand these problems and therefore we would not have made the step forward that has been made in the past five to ten years.

The independent dealer who is active and on the job will admit that his business is better now than it has ever been.

We have in Mississippi an Electric League, and one function of the Mississippi Electric League is to promote harmony through the various branches of the industry. There are nine members of the harmony committee, three members contractor dealers, three members from the Utilities, and three members from the Jobbers serving Mississippi. This committee meets about three times a year and irons out all of the difficulties and creates a harmonious feeling throughout the various branches of the industry. I believe if each state had its own Electric League functioning like the Mississippi Electric League there would be less misunderstanding and certainly there would not be indictment made against the Central Stations like the one mentioned in your magazine.

A. G. RIDDICK.

## ORDINARY METHODS CAN'T BE USED ON ELECTRICAL GOODS

OKLAHOMA GAS & ELECTRIC COMPANY
Oklahoma City, Okla.
May 13, 1929.

Electric Refrigeration News,
Detroit, Michigan.

I have read carefully your letter of May 9 and the accompanying reprint of an editorial taken from the *Electrical World* of April 20. I have also read your editorial, bearing date of April 24.

I think the *Electrical World* has stated the case most admirably as has your editorial in support of its position.

I agree with the critics of electric light and power companies that there can be no justification for their entering the merchandising field solely for the purpose of making a profit on merchandising. However, too many of our critics fail to realize that the use of electrical appliances is comparatively new. Up until the last few years, these appliances were considered more in the nature of a novelty than a necessity. In too many instances, this is still the case.

The ordinary methods of merchandising do not apply as yet in the handling of electrical equipment. In most cases, the prospective purchaser must be sold not only the equipment, but, along with the equipment, the rates, practices and policies of the central station company, this for the reason that upon the company he is dependent in a very large measure for the successful operation of the equipment.

The sale, to be of advantage to the purchaser, must result in the saving of either time or money, or both.

**Central Station Has Direct Interest in Every Appliance Sold**

Whether the sale is made by a central station company or by a merchant, the central station has a direct interest in the sale. It has an interest because, if the appliance or electrical equipment sold is not standard, and if, in the sale, the purchaser is not thoroughly informed as to the best method of its use and as to the probable cost of operation, and again, if the seller is not sufficiently interested in the successful operation of the appliance to follow it through with regular inspections, at least until the customer is thoroughly satisfied with its use, its successful operation is doubtful.

Such a transaction can result only in the loss to the central station of an outlet for its service. The equipment so purchased will either remain on the shelf, a perpetual reminder to the central station company's customer of an unsatisfactory experience, or it will be shoved back in the corner as a handy receptacle for dust and trash.

The central station is more than a manufacturer and distributor of electricity. To it has been delegated the important trusteeship of rendering a needed service to the community in which it operates. This obligation, if properly discharged, includes the bringing to each customer full knowledge of all the uses which he can make of electrical service to his own profit and greater comfort.

In the discharge of this obligation it is necessary that the company keep abreast of all developments in the electrical art, it is necessary that it keep in close contact with manufacturers, and research agencies, and cooperate with them in further development.

**Must Do the Promotion Work**

Properly to bring full knowledge of the uses to which electricity may be put in each individual's home requires a study of that home. It requires a great deal of promotional work. This promotional work will, of necessity, continue until the demand for electrical appliances becomes as universal as other stable merchandising lines. Until this time comes, however, some one must do the promotional work. This obligation, it seems to me, falls squarely upon the central station company.

Personally, I was very reluctant to have the company with which I am connected engage in the merchandising business. I saw that it meant a great deal of work, a great deal of concentrated thought and effort, and it was only until I became convinced that in no other way could our customers be induced to take advantage of what we have to offer, and in no other way could we properly discharge our duty to these customers, that I was willing to undertake the task.

I believe it to be the duty of the central station company to merchandise. While I believe this, I believe it is just as much its duty to see to it that its merchandising policies are in accord with sound merchandising practices.

**Condemns Price Cutting, Premiums, Long Terms, Small Payments**

I do not believe in price cutting, premiums, large allowances on trade-ins, and all the other expedients which are adopted as a sort of a "crutch" for lazy and indifferent salesmanship. I do not believe in long time payments and small down payments. In short, I do not believe in adopting any practice which a conservative merchant regards as bad merchandising policy.

I believe it to be the duty of the central station company to ascertain what the merchants in its territory consider sound policies, and to join with them in upholding such policies.

The time may come, and I hope the time may be soon, when the central station company in the discharge of its duty can leave the merchandising of appliances to those engaged in purely mercantile activities. In my judgment that time is not yet here.

J. F. OWENS,
Vice President and
General Manager.

## NATIONALLY UNIFORM LIST PRICES DRAW-BACK TO UTILITIES

PENN CENTRAL LIGHT AND POWER COMPANY
Altoona, Penna.
May 8, 1929.

Electric Refrigeration News
Detroit, Michigan.

I have recently finished an exhaustive reading of the Merchants and Evans protest to the Federal Trade Commission on Confiscatory Practices Pursued by Central Stations, Particularly with Respect to Refrigeration. Briefly, I find it one of the sourest cases of "sour grapes" that has come to my attention for a long time. It far outclasses the wails of the weakest of weak-kneed competitors in what has come to be a highly competitive field.

Our views on the subject of this pamphlet are rather useless, since our organization in Pennsylvania does not pursue any of the practices whatsoever which Merchant & Evans lay at the door of public utilities. Coincidentally, we have two properties, the Chester Valley Electric at Coatesville and the Edison Light & Power Co., at York, which are situated in the center of the territory which he attacks and strangely enough, we are not mentioned in this attack, due probably to the fact that inquiry showed us to be pursuing straight retail merchandising tactics, with the primary consideration, the realization of a net profit and the secondary consideration, load-building. Not being attacked, we naturally have no personal criticism of the presentation by Merchant and Evans. We do, however, feel that any public utility in its merchandising policies, has the right to set-up a procedure which represents what that utility believes to be in the best interests of the success of the utility. We believe that a straight load building program, such as pursued by the Georgia Power, is as justifiable as a straight net profit realization program, which is being pursued on our group of properties in Pennsylvania. It is merely a question of policy.

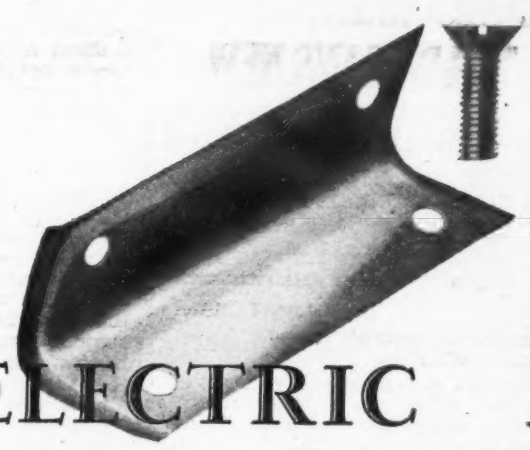
I might go further and state that one of the biggest draw-backs to the realization of a real net profit in central station merchandising is due to the fact that we are beset with at least 90% of our merchandising quoted nationally at uniform list prices on which, of course, certain hard specific discounts apply. This, of course, prevents the manipulation of merchandising activities, on a mark-up and mark-down basis, a privilege which practically every other merchandising outlet is able to enjoy and under which the Merchant and Evans protest would put refrigeration 100% in a national list classification.

As far as central station merchandising is concerned, I would like to place a copy of this protest in the hands of everyone of our potential customers, because I feel that it is so extreme that it would drive all thinking customers directly to us with the firm belief that they could buy better merchandise at more reasonable prices, than from any other possible outlet.

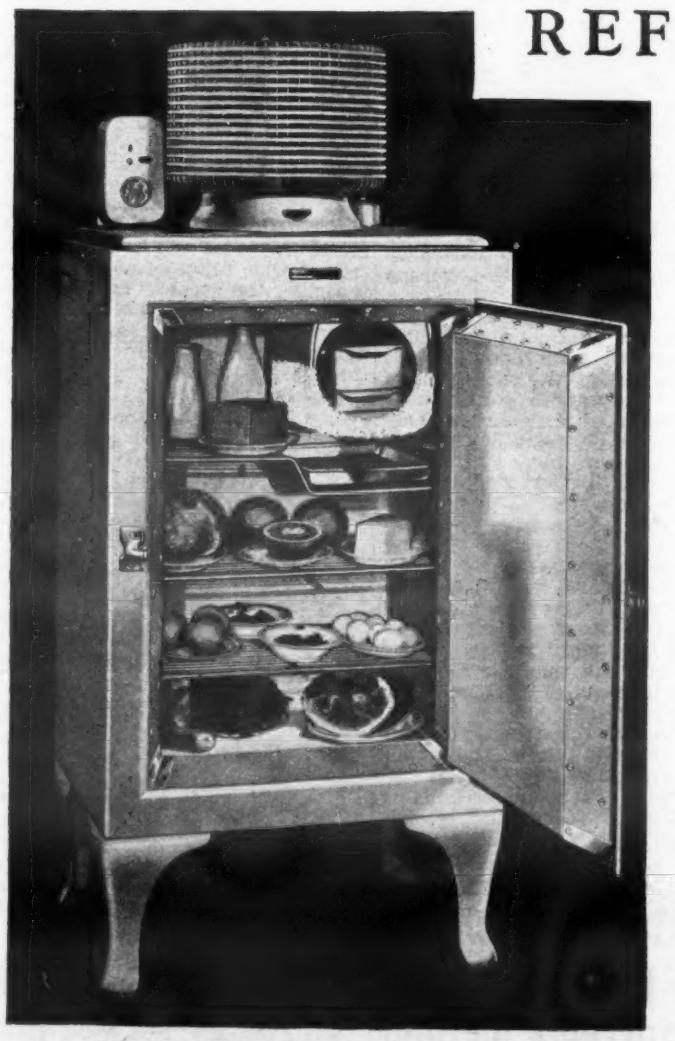
R. M. PHELPS,
General Merchandising Manager.

**(For additional opinions see page 6)**


*Trimmed with*
MONEL METAL
screws and
angles . . .



GENERAL ELECTRIC
REFRIGERATORS



THE General Electric trade mark on an electric refrigerator is akin to the sterling mark on silverware. It always stands for highest quality in every detail.

The specifications of the General Electric Refrigerator (model G-55) call for the use of corner angles and screws that will retain their strength, brightness, and polish where there is moisture, constant wear and general hard use. That's why General Electric uses Monel Metal.

Monel Metal combines silvery beauty with rust-immunity and corrosion-resistance. And back of these very important properties is another of equal value — STRENGTH. Monel Metal's strength is equal to that of steel.

Refrigerator manufacturers who are using Monel Metal for trim, screws, etc. are cashing in on the public appreciation of Monel Metal which has been built up through continuous color advertising in The Saturday Evening Post and Good Housekeeping.

Why not write us for more information about Monel Metal and a copy of our new booklet, "Monel Metal Enters the Home"?

*See our exhibit at the National Electric Light Association Convention, Municipal Auditorium, Atlantic City, New Jersey, June 3rd to 7th, inclusive. Space Nos. 375 & 377.*

*Model G-55 General Electric Refrigerator showing Monel Metal Corner Angles and Screws. All the screws holding the special odorless facings on door and jamb are Monel Metal.*

Monel Metal is a technically controlled Nickel-Copper alloy of high Nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company, Inc. The name "Monel Metal" is a registered trade mark.

INCO MONEL METAL

MONEL METAL

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

# CENTRAL STATION MERCHANDISING

Continued from Page 5

## FINDS ACTIVITIES OF UTILITIES BENEFIT TO INDEPENDENT STORES

OKLAHOMA UTILITIES ASS'N.
1020-23 Petroleum Building
Oklahoma City, Oklahoma
May 17, 1929.

Electric Refrigerations News
Detroit, Michigan.

Re central station merchandising methods and the Federal Trade Commission investigation I think the investigation will develop the following facts:

1. In most instances central station companies that are merchandising appliances are prompted by necessity rather than by choice in doing so, the necessity existing in the need for building up the load.

2. Unethical practices, such as alleged in the complaint to the Federal Trade Commission, are the rare exception and not the rule.

3. Independent merchandising agencies will admit that they have been benefited rather than injured by the merchandising activities of central station companies.

4. Complete service to the public demands that central station companies make dependable appliances available upon reasonable terms in the communities they serve, unless this need is being adequately taken care of otherwise.

5. Central station companies should not, and as a rule do not, take unfair advantage of independent merchandisers.

EDW. F. McKAY,
Manager.

## NO RESTRAINT OF TRADE SAYS NEW JERSEY COMPANY

RAUF MAUFACTURING CO.
95 West Shore Avenue
Bogota, N. J.

"Alpinice" Electric Refrigerators

May 11, 1929.

Electric Refrigeration News
Detroit, Michigan.

We are in receipt of your letter of the 8th, asking our experience with regard to competition with public utility companies.

So far we have had no competition at all from these companies. That is, there is the usual competition but nothing that would constitute restraint of trade. We have received the Merchant & Evans booklet and have been asked our experiences and we have written in return the same letter as we are writing you.

CHARLES H. STEWART,
Secretary.

## CITES TWO EXAMPLES OF FAIR AND UNFAIR SELLING PRACTICES

OSWEGATCHIE LIGHT & POWER CO.
Gouverneur, N. Y.

May 8, 1929.

Electric Refrigeration News
Detroit, Michigan.

We have been following, with a great deal of interest, the matter of investigation by the Federal Trade Commission in regard to complaints which have been made against central station merchandising methods. So far as the merchandising methods which this company in particular follows, especially in Gouverneur Village, it is necessary for us to sometimes give our material away, in order to hold or obtain users of electricity for light, heat, or power. The reason for this is, that there are two active competing power companies in the same vicinity and operating in the same streets and highways.

We happen to be intimately acquainted with the merchandising methods, however, of two major utility companies, which are located within this state, but approximately 200 miles apart. One of these companies uses absolutely fair merchandising methods in competition with contractors and dealers. This particular company in fact, will cut the price under no consideration and neither will they deviate from a certain specifield sales plan, on which they have added a certain amount for carrying charges for time payments. This is even farther than the contractors and dealers carry the merchandising, many of whom did not make any charge for carrying over a period of a year or more. For this reason that particular company sometimes lost business, which the contractor or independent dealer obtained.

The methods of merchandising used by the second utility mentioned, are such that it is practically impossible for any contractor or dealer to do business in the territory in which this company operates. The utility company, in this instance, even goes so far as to do house wiring and general contracting work and if a regular contractor or dealer bids on a job in competition against them, there is absolutely no possibility of the contractor obtaining the job, especially if the utility company knows that they are bidding against competition.

We could go more into detail on both of these situations, but judging from the two instances above, with which we are familiar, there is no question in our mind, but that the independent dealers and contractors have a legitimate complaint in certain sections of New York state.

G. R. TRERISE,
Superintendent.

## CUSTOMER'S VALUE SERVICE POLICY OF POWER COMPANIES

INDIANA ELECTRIC CORPORATION
Sixth Floor Guaranty Building,
Indianapolis, Indiana
May 18, 1929.

Electric Refrigeration News,
Detroit, Michigan.

In response to your request of May 14th I am listing below in a few paragraphs something of our experience in the sale of electric refrigeration:

A careful study of statistics prepared by manufacturers of mechanical refrigeration will show the Central Station merchandising man that this type of equipment from a load building standpoint offers him something that he cannot afford to overlook. The load is very desirable, both from a standpoint of the actual increase in K. W. H. and of the diversity with which it integrates on the line.

**Refrigerator Is Good Will Builder.**

As a builder of good will, mechanical refrigeration will no doubt be a very helpful factor for the reason that we are offering our customers an added use for our service which will play a very important part in their daily lives. Once the customer realizes the extreme value of proper food preservation, the operating cost of the equipment becomes a secondary factor and he is actually pleased that the service of his utility company makes the operation of such equipment possible.

Getting over to the customer the full appreciation of the value and almost absolute necessity of correct food preservation will perhaps be one of the great success factors in the sale of mechanical refrigeration of any type. With this in mind, it would rather seem that a sales plan to produce results should be of a dominating type to cover a given territory as quickly and thoroughly as possible. Various manufacturers are prepared to give invaluable assistance in laying out such a plan. We have found the manufacturer's help an extremely important item in the plan we are using this year.

In past years we had looked upon mechanical refrigeration as a seasonable device and laid our sales plans so as to run campaigns during the early part of the summer. This year we took the attitude that mechanical refrigeration could be sold any time during the year and that the way to insure success of a summer's activity was to start an intensive sales effort on January first. In this way the natural inertia of a sales organization, due to lack of experience or other reasons, can be overcome early in the year so that the summer months may be entered by a hard hitting sales crew that has confidence in its ability to produce. That there is some merit in this thought is shown by the fact that our sales for the first five months of 1929 will pass those of the year 1928.

We have lost no opportunity to keep mechanical refrigeration in the public eye, which, of course, has been very beneficial from a standpoint of building public confidence in the product we sell.

C. V. SORENSEN,
Sales Manager.

## J. C. BURTON SUCCEEDS WOOD IN KELVINATOR PHILADELPHIA DISTRICT

J. C. Burton, formerly merchandise manager of the Detroit Edison Co., Detroit, Mich., has joined the Kelvinator Sales Corp. as district manager for Philadelphia territory. Campbell Wood, whom Burton succeeds, was recently made manager of the utilities division of Kelvinator Sales Corp.

Mr. Burton was merchandise manager of the Detroit Edison Co. for fourteen years and is well known in the utilities merchandising field.

## COOPERATIVE SELLING NETS PROFIT TO BOTH UTILITY AND DEALER

CENTRAL HUDSON GAS & ELECTRIC CORP.
50 Market Street, Poughkeepsie, N. Y.

May 11, 1929.

Electric Refrigeration News,
Detroit, Mich.

It is our belief that the central station can never get entirely out of the merchandising business without seriously reducing the amount of electrical merchandise sold by other outlets. In addition to this, if the central station ceases to merchandise they would withdraw from their customers a real service which they now render by having available for display and purchase a complete line of the many appliances needed to make the modern home a comfortable place to live in.

The only way to reduce the cost of electrical service to the public is by increasing the average use of electricity per customer. This requires a tremendous program of education and in order to make such a program really effective needs the aid of every available outlet, such as department stores, plumbing shops, hardware dealers, etc.

That the central station can successfully develop these cooperative dealers is shown by our own gas program over the past two years. Our company realized two years ago that in order to educate the public to a hot water consciousness we must enlist the aid of the plumbers. We commenced immediately to educate the plumbing trade in the value of the water heater business and as a result approximately 30% of all of the storage water heaters attached to our lines during 1928 were sold by the plumbers. This year, if our sales continue at the present rate, we will sell storage water heaters to 10% of our residential customers and 85% of these heaters will be sold directly by the plumbers.

This cooperative activity has been so satisfactory in the gas business that we are now extending the same program to our electrical field.

H. E. DEXTER,
Asst. General Commercial Manager.

## SERVEL SALES, INC., OPENS CONTEST FOR SALESMEN

Servel Sales, Inc., Evansville, Ind., retail electric division, announces a contest among Servel compression salesmen, the dealers who act as salesmen, which began May 1 and ends June 31. Awards are to be offered for making a certain number of credits which are to be based on sales. There will also be a special president's prize of a Servel D5 refrigerator for the man making the best showing. Credits of 240 will win $60 in merchandise; 320, $80, and 400, $100 in goods. Winners will be allowed to select from a wide range of objects. The man reporting the greatest number of credits during any week of the contest will be given double credits toward the president's prize. Dealers who maintain sales forces and sales managers are not eligible to compete.

## NEW INDIANAPOLIS SCOTTISH RITE CATHEDRAL SUPPLIED WITH KELVINATOR EQUIPMENT

Kelvinator equipment is being installed in the new Scottish Rite Cathedral at Indianapolis, Ind. The installation is being made by Kelvinator Indianapolis, Inc.

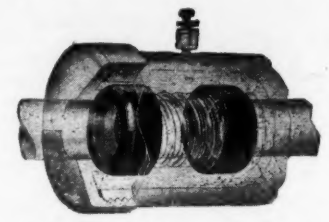
The equipment consists of three large storage refrigerators equipped with one model WB condensing unit and two model 66 XD cooling units each; and three model 411 McCray cafeteria refrigerators equipped with one 19 V coil and one model AF condensing unit each.

The cathedral is one of the most complete and distinctive buildings of its kind. It was designed under the direction of George F. Schriber, Chicago architect.

### Sparklets Appoints J. E. Lavor New England Sales Agent

Sparklets, Inc., New York, N. Y., announces that J. E. Lavor, sales manager for the Pattingill-Andrews Co., Boston, Mass., has been appointed New England sales agent with offices in the Hotel Statler in Boston.

Branches were recently opened by Sparklets, Inc. in the Victoria Bldg., St. Louis, Mo., under the direction of Harry B. Hazelton, and in the Allen Bldg., Dallas, Tex. Clay Folsom is divisional manager in charge of southwest territory. Tracy, Locke & Dawson of Dallas, Tex., have been appointed to take charge of Sparklet advertising.

Style No. 2 Cooke Seal Ring

**What?**

**A Stuffing Box Without Packing?**

That is exactly what the Cooke Seal Ring now makes possible. No expensive packing to buy. No labor or shut-down time to install or renew. Equip your stuffing boxes with Cooke Seal Rings and forget that packing ever existed. Do this and you also create a joint which is absolutely leak-proof against any liquid or gas under pressure or vacuum, eliminate scored shafts, cut friction to almost nothing, prevent motor overload, save money. Already standard equipment on the compressors of many leading electric refrigeration manufacturers. Write us for detalis.

**COOKE Seal Ring**

20 N. Green Street, Chicago, Illinois, Dept. O

COOKE SEAL RING
20 N. Green St., Chicago
Dept. O.
Please send me your free booklet without obligation.

Name .....
Address .....
City ..... State.....

**Ready to Install**

This special seamless copper tubing is perfectly dehydrated and sealed. Standard lengths and sizes—shipped "Rush"—by post, rail or truck. Write your requirements.

*We endorse the National Food Preservation Program initiated by the Refrigeration Committee of the National Electric Light Association.*

**WOLVERINE TUBE CO.**

SEAMLESS COPPER BRASS & ALUMINUM

1481 Central Ave., Detroit, Michigan

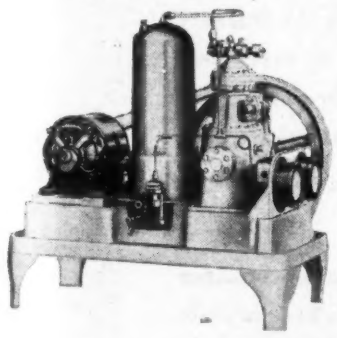
*Sales Offices:* Cleveland; Chicago; Atlanta; Los Angeles; Denver; Dayton, Ohio; New York City; Dallas, Texas.

*N. E. L. A. Convention, June 3-10. Visit our booths (165 and 169) and learn more about Servel's double line.*

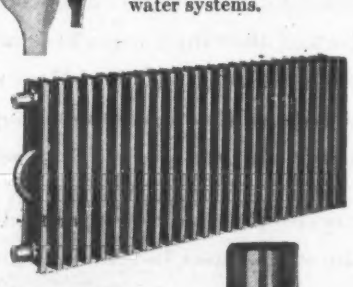
# Domestic *and* Commercial Prospects

# . . . both yours with this DOUBLE LINE

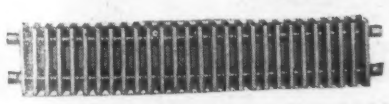
***Servel dealers can go after every bit of refrigeration business and make money on all of it, too.***

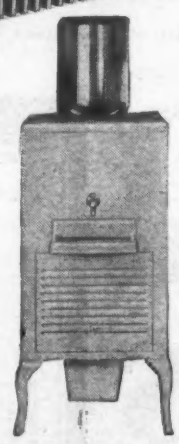


***One of the Commercial Machines,*** Model 75-AW Compressor. Designed for use in soda fountains, grocery and meat refrigerators, florist boxes, display cases, multiple apartment installations, milk coolers and circulating water systems.



***Two of the Ten Sizes*** of chilling sections used in Servel commercial installations. From these you can see how easily they can be adapted.





***Water Coolers, Too!*** There are three that cover the field adequately. And this water cooler business is getting better all the time!

KITCHENETTES and butcher shops, mansions and cafeterias . . . they're all possible sales for the Servel dealer.

No passed-up prospects for him! He can confidently go after every bit of refrigeration business in his community because he knows he can handle it . . . and handle it *right.*

The double Servel line does it . . . gives dealers a real chance at *all* the business—both domestic and commercial. With a real profit on every installation, too!

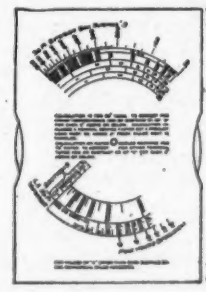
***Gets the women's vote . . .*** Just take that NEW SERVEL domestic line. It's got a tremendous appeal for women (and, after all, it's the woman who *must* be sold). In designing it, we've gone far beyond the fundamentals. The *little details* have been carefully planned . . . seemingly unimportant, perhaps, but they save a woman endless tiresome bother. And once they're pointed out, they'll get her vote every time!

***The big things, too . . .*** Of course, the NEW SERVEL has all the main features. It's quiet . . . remarkably so. Economical, too, in its current consumption. Makes lots of ice *between meals.* Keeps food fresh in its steady cold. And, most important of all, is absolutely dependable *in any weather and any climate.*

Construction, too, is unusually fine in the NEW SERVEL. The hardwood frames are fitted *by hand* and screwed together—not a nail anywhere! There's heavy corkboard insulation, moisture-proofed with hydrolene. The liners are seamless porcelain. The finish is five-coat . . . baked on . . . crack-proof. And these cabinets come in sizes to fit the needs of any sized family.

***An easy-to-sell commercial line . . .*** Perhaps even bigger, proportionately, is the Servel dealer's chance for commercial business. Bigger, because Servel *has made commercial refrigeration far simpler to sell and install than ever before.*

Engineering, for instance, is an easy matter. The Servel Calculator, a simple device, does practically all the work. With it, a salesman can do virtually all preliminary calculating necessary on ordinary jobs *right in his customer's office.* For estimating on special installations, the dealer can count on 100% cooperation from the Servel engineering department.



### *This Servel Calculator*

saves countless wrestling matches with figures. It just about eliminates all the work attached to the preliminary engineering on commercial jobs. And it is easy to carry . . . pocket size.

***Flexible to install . . .*** Installation is simple, too, and unusually economical. The new all-copper chilling section makes it possible to build up most jobs from stock. These sections are so light that one man can erect an ordinary job. And the Servel system is so flexible that the dealer never has left-overs . . . he can always be sure of using his full stock of sections on new installations or expansions.

***A real business opportunity . . .*** There are still some territories where the Servel franchise is open, but these will be gone soon—if the way former ones have been snapped up is any indication!

If you are prepared to handle a real proposition like this, write us. We'll be glad to give you full information.

***How these lines help each other . . .*** One big advantage of the two Servel lines is that each is continually uncovering prospects for the other. Dealers say that a single installation in one line often produces several sales in the other. And two lines give the dealer an almost steady year-round business, for dependable commercial refrigeration is just as necessary in winter as in summer.

# SERVEL SALES, Inc.

**EVANSVILLE, INDIANA**

SEAL of SANITATION — SERVEL Electric Refrigeration — WE GUARD YOUR HEALTH BY PROTECTING YOUR FOOD

***This seal on a store's door or window guarantees fresh, perfectly kept food to customers.***

# N. E. L. A. President Elect

**M. S. SLOAN**
President, New York Edison Co.

## *Harmony Among Manufacturers, Distributors, Utility Companies Vital to the Industry—Sloan

WE are willing to do all we can to further the sale and use of electric refrigerators. We cannot finance the transactions by which they are sold. That, as we see it, must be your job. Neither can we service them once they are purchased and in use, as we service some of the appliances on our lines which are sold through our salesrooms. That is a job for the distributors, and I am glad that your organization has set up a service department to take care of that work. I believe every manufacturer's representative should have a service department for refrigerators, for they require attention some time or other, even the best of them, and with the utility companies not in position to service them, the customer logically looks to the representative of the manufacturer.

As electrical conveniences go, the refrigerator is high in price. It also uses quite a bit of energy. It just about doubles the average family's monthly bill for electricity, but I have never yet heard of anyone possessing a refrigerator who grudged the initial investment, still less the running charges. The sum added to the electric bill in most cases is less than the ice bill had been. Even where it equals or exceeds the ice bill, the customer is not disgruntled, because of the added comfort and convenience and better sanitation he gets. He is, in short, satisfied and willing to pay for his satisfaction.

The electric refrigerator has made a strong appeal to the public. It has succeeded not alone in selling itself, but it has sold the idea of refrigeration to a much greater degree than it was ever held before. You are doubtless more familiar with this state of facts than I am, but I understand the active sales effort in behalf of electric and gas refrigerators has so stirred up and stimulated the ice industry that it is now doing a larger business than when it had the field to itself.

Now that situation, as I look at it, is a good thing all around—good for all elements engaged in supplying refrigeration and good for the public. It illustrates a phase of the electric business which is a constant inspiration to me. We can stay in business, we can continue our remarkable record of growth and development only as we measurably and definitely benefit the public, our customers. That is true, of course, of all legitimate business. It must contribute to the welfare of the customer in comfort, or convenience, or economy, or pleasure, else it has no proper place in the scheme of things. The electric business, however, makes so direct and definite a contribution to so vast a majority of people in so many ways in which directly or indirectly it touches their lives, that we who are engaged in it take great pride in what it has done and will continue to do for humanity.

Mr. Edison, not so very long ago, hit this nail right on the head. He said that the electric industry had by no means reached its maximum usefulness or really began to do its full job. It would not reach that stage so long as there remained one task for humanity which electricity could do better than any other agency. That is a tolerably broad statement when we consider what electricity already is doing, yet it is unquestionably true.

Consider the home. First, electricity put out of business the oil lamp with its smoke and dirt, its daily need for the disagreeable tasks of cleaning, filling and wick trimming. Then it retired the broom and dust pan, unsatisfactory back-breaking instruments of daily toil which did not really accomplish their purpose. Then it took over the major tasks of washing and ironing, dish washing, sewing. Its uses in the home now are so numerous I could hardly catalog them. It will heat water for shaving, extract orange juice for cocktails, make your after-dinner coffee at the table, run the radio, keep your oil-burning furnace operating, give you mechanical exercise if you are too lazy to take it any other way, furnish a health-giving equivalent of sunlight if you can't get your violet rays from old Sol himself.

But not all people take advantage of these opportunities, or even of the majority of them so that the electrical industry has still a long way to go, all branches of it, manufacturers, distributors, utility companies, before electricity will be doing its full job.

### Electricity a Splendid Salesman

Consider stores and mills and mines and factories. Electricity is a splendid salesman. Scientifically lighted store windows have proved to be an attention getter of the first order. Properly lighted stores displaying goods to advantage in settings made attractive by such lighting get largely increased sales. Electricity in mine, mill, factory, and building operations has vastly lessened physical labor and greatly increased production or output of work. The American working man has an average of 4½ hp. behind him, which enables him to multiply his production and so he commands high wages. Electricity is the basic element in mass production, quantity production, which is the outstanding phenomenon of our present industrial development. Hence, electricity is an important item in America's prosperity, which makes it possible for people to buy and use electric refrigerators you sell, and buy other articles of use and luxury which contribute to America's high standard of living.

### A Big Job Still Ahead

But not all stores employ electricity to fullest advantage, not all factories and industries are completely electrified, although some industries are operated practically 100 per cent by electricity. So our industry still has a good distance to travel before it will be doing its full job in this field.

It is a satisfaction, a proper cause for pride, an inspiration, to have a part in a business which is doing such things in this world of ours. It is a great business, made up of many elements, all of which are necessary and useful. I have heard electrical utilities condemned and criticized on the ground that they take to themselves a principal place in the affairs of the industry and chief credit for its accomplishments. I don't think they have ever any idea of seeming to hog credit, but wherever it occurs, it is wrong. A utility supplies electricity which is the basis of all things electrical, but electricity has to be applied to be useful. Articles have to be made, machines, appliances, motors, to put it to work. Otherwise it is no more good than a flash of summer lightning or a spark of static you get when you stroke a cat's back. Manufacturers have to make these articles and distributors and dealers have to sell them. All are a part of the electric industry and all are necessary. Since all are necessary, proper harmony and co-operation will advance their interests farthest and fastest. Most important, co-operation within the industry, all elements having high business ethics and sound business practices, will best serve the public.

Along such lines we shall do our best work and hasten the day Mr. Edison foresaw—the day when electricity is doing all the tasks of humanity which it can do better than any other agency.

*This address was given by M. S. Sloan, president, New York Edison Co., at a dinner of the Rex Cole, Inc., organization, March 21, at the Hotel Biltmore, New York.

## REFRIGERATOR SALES BY KANSAS G. & E. HIT $69,063 DURING MARCH

Electric refrigerator sales by the Kansas Gas & Electric Co., Wichita, Kans., during the month of March totaled $69,063 or 92 per cent of the quota set for that period. C. E. Miller, Wichita, reported sales totaling $16,510 for that period, while J. W. Tarr, Independence, sold 58 Frigidaires amounting to $15,022 during that month.

## SENATOR COPELAND ADDRESSES WOMEN AT WANAMAKER'S

### Authorities on Health and Food Head Program Given by New York Department Store

EXTRAORDINARY precautions are taken to insure the purity of the milk supply for New York City, the system of inspection being organized to follow the milk all the way from the hundreds of dairy farms to the point of delivery at the doorstep of the consumer, but until the advent of electric refrigeration there has been no adequate provision, and little understanding of the necessity for proper refrigeration of the milk after it reaches the consumer. That milk must be kept below 50 degrees to avoid rapid growth of bacteria, was emphasized in an interesting address to three hundred women given by Dr. Royal S. Copeland, United States Senator from New York, and former Health Commissioner of New York City, at the Wednesday afternoon, May 15, program given by the Wanamaker Department Store in New York City. Dr. Copeland was one of the headliners in a series of talks on electric refrigeration given by nationally known authorities on health and food at the third annual Wanamaker Automatic Refrigeration Show, May 13 to 18.

Speakers at other sessions were Ruth Goettler, domestic science specialist; Lettie Gay, director of the New York Herald-Tribune Institute; Alice Bradley, principal of Miss Farmer's School of Cookery and Cooking editor of the Woman's Home Companion; J. P. Galloway, Frigidaire Corp., and Victoria Carlsson, instructor in Household Arts, Teacher's College, Columbia University.

Makes displayed at the show were Electrolux, Frigidaide, General Electric, Kelvinator, and Rice.

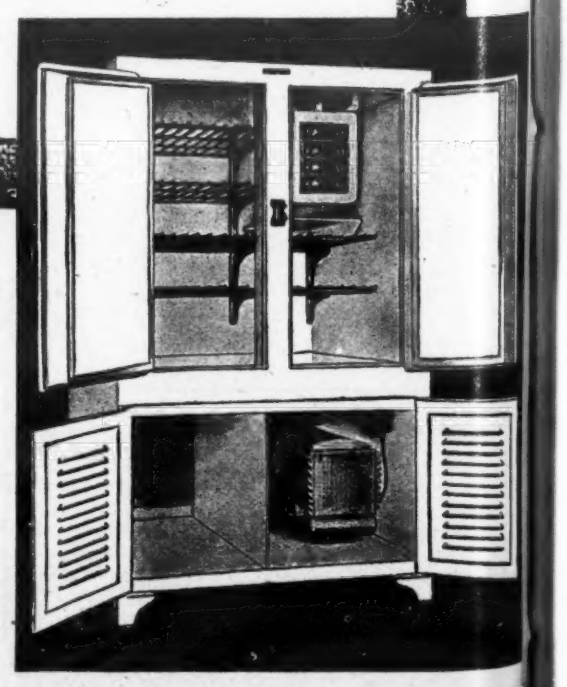

# Please be patient!

WHEN we announced the Holmes Electric Refrigerator we expected that its superiorities would gain prompt recognition from buyers. But what has happened has so far surpassed our expectations that we must ask you to be patient.

A tremendous popular demand for the Holmes has sprung up, almost overnight, in every section of the country. Orders have been received in an increasing volume. All estimated quota figures for the year have proven far short of the actual demand.

To Holmes distributors and dealers, who—for the moment—find that their sales keep a little ahead of supply—we urge patience. Meanwhile, please remember that a continuous popular demand is the stuff that success is made of.

You will always be glad you chose to handle the Holmes. Holmes Products, Inc., 205 E. 42nd St., New York City; Works: Bridgeport, Conn.



HOLMES
ELECTRIC REFRIGERATOR

We endorse the National Food Preservation Program initiated by the Refrigeration Committee of the National Electric Light Association.

# YOU CAN MATCH THIS PERFORMANCE!

## *The Pennsylvania Power & Light Co. orders 33 carloads of General Electric Refrigerators to fill immediate demand.*

**The refrigerator illustrated is one of the six new *all-steel* models. It can't warp, is stronger, sturdier, and costs less to operate.**

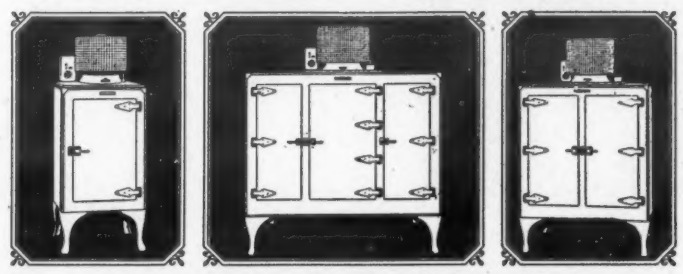
***Mr. R. W. Hoy, Manager of Merchandise Sales for the Pennsylvania Power & Light Company, says in a recent order—"We were compelled to order 33 carloads of General Electric Refrigerators for immediate shipment to meet the demand. My only wish is that we will be compelled to order a like amount in the very near future."***

**Due to the Increased Demand**
***—for—***
**GENERAL ELECTRIC**
**Refrigerators**
**We Were Compelled to Order**

# 33 CARLOADS

***(1200 Refrigerators)***

**For Immediate Shipment**



**Sizes and Styles to Meet Every Individual Need.**

**We are pleased to announce that we can now deliver promptly to your home any size or model General Electric Refrigerator, and we invite you to visit our Sales Room and see the newest models on display.**

**You Will Want a G. E. Refrigerator — Order Today!**

**Protect Your Food the G. E. Way**
**"Make it Safe to Be Hungry"**

**Enjoy the Many General Electric Features:**

Hermetically sealed, dust-proof mechanism.
Entire mechanism mounted on top.
Easily accessible temperature control.
Sanitary porcelain chilling unit.
No drain pipes, belts, or fans.
A mechanism that never requires oiling.
A new standard of quiet operation.

Mounted on legs; easy to clean underneath.
Maximum food storage space in cabinet.
Surprisingly low cost of operation.
Absolutely no radio interference.
No installation problem whatever.
Improved type cabinets.
An unqualified two-year service guarantee.

**Sold on Easy Time-Payment Plan**

**18 MONTHS TO PAY**

**Only a Small Amount Down**
**Balance in Easy Consecutive Monthly Payments**
**Let us Deliver One to Your Home on Free Trial. Visit Our Sales Room or Phone 5151.**

**Pennsylvania Power & Light Company**

**This advertisement was carried in 82 newspapers by the Pennsylvania Power & Light Company.**

HERE is an example—just one of many—showing how any central station may easily profit on the nation-wide demand for General Electric Refrigerators.

Mr. Hoy, whose statement is given above regarding the order for 33 carloads of General Electric Refrigerators from the Pennsylvania Power & Light Co. says further: "The increased demand for General Electric Refrigerators is due, in our opinion, to the fact that it is the best refrigerator made and to the advertising run in the national magazines, newspapers and on the bill-boards and other advertising matter set up by the General Electric Company and distributed by Page-Morris, Inc., and the hearty cooperation we are receiving from Page-Morris, through their constant contact with us." What the Pennsylvania Power & Light Company has done other central stations can do. If you will stock these refrigerators, display them, offer a *reasonable* time payment plan, advertise them—you will find that they will sell—profitably.

*We endorse the National Food Preservation program initiated by the Refrigeration Committee of the National Electric Light Association.*

General Electric Refrigerators are the most desirable of load builders—a doubled load for each domestic customer—load that means high net revenue because there is no servicing problem.

Any central station which is neglecting electric refrigeration is overlooking an exceptional opportunity. Now is the best sales season and the time for action.

We hope to see you at the N. E. L. A. Convention at Atlantic City. Our exhibit space is No. 616.

# GENERAL ELECTRIC
## ALL-STEEL REFRIGERATOR

ELECTRIC REFRIGERATION DEPARTMENT, GENERAL ELECTRIC COMPANY, HANNA BUILDING, CLEVELAND, OHIO

# N.E.M.A. REFRIGERATION DIVISION

## The Technical Committee

C. C. Spreen

E. T. Williams

Glenn Muffly, Chairman

H. W. Kleist

A. R. Stevenson, Jr.

## GLENN MUFFLY HEADS TECHNICAL BODY OF NEW N.E.M.A. DIVISION

### Appointed at Executive Meeting, Cleveland, May 7

AT THE first meeting of the executive committee of the new Refrigeration Division of the National Electrical Manufacturers' Association held in Cleveland on May 7, a technical committee under the chairmanship of Glenn Muffly of Copeland Products, Inc., Detroit was appointed. Other members of the technical committee are E. T. Williams of Servel, Inc., A. R. Stevenson of the General Electric Company, C. C. Spreen of Kelvinator Corporation and H. W. Kleist of the Dole Refrigerating Machine Company. The work of this committee will include matters pertaining to refrigeration safety, codes and other technical matters.

Another important result of the meeting was the adoption of a form for the collection of industry statistics having to do with sales of the principal types and sizes of refrigeration equipment. Under the plan adopted figures released on this form by individual companies will be kept absolutely confidential except for the totals which will be for the entire industry and which will be made public. Statistics on current sales have been much in demand as a guide to manufacturers. When these figures become available over a period of time, the possibility of serious over production should be eliminated.

## Form for Collection of Industry Sales Statistics Adopted

**NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION**
**420 Lexington Ave.**
**New York City**

This report should cover the total billings by the manufacturers (in units and dollars) of the various classes of refrigerators shown below for the quarter beginning _____ and ending _____

| | Less Than 500 Lbs. | | From 500 to Less Than 2,000 Lbs. | | From 1 Ton To Less Than 10 Tons | |
|---|---|---|---|---|---|---|
| | Units | Dollars | Units | Dollars | Units | Dollars |
| (1) Self-contained Refrigerating Systems with machine, cooling coils, **and cabinet** (not including water cooler, ice cream or dairy units. | | | | | | |
| (2) Self-contained Water-cooling units with machine, cooling coils and cabinet complete. | | | | | | |
| (3) Self-contained Ice Cream units with machine, cooling coils and cabinet complete. | | | | | | |
| (4) Self-contained Dairy Units with machine, cooling coils and cabinet complete. | | | | | | |
| (5) Refrigerating Systems with machine and cooling coils, **without cabinets**—(not self-contained) (not included in 1, 2, 3, or 4 above). | | | | | | |
| (6) Compression Units only, with or without motor (not included in 1, 2, 3, 4 or 5 above). | | | | | | |
| (7) Cooling Coils only (not included in 1, 2, 3, 4 or 5 above). | | | | | | |

This report should be mailed in the green envelope furnished for this purpose in time to reach the office of the National Electrical Manufacturers' Association on or before the 15th of the month following the closing of the quarter.

## LELAND P. BANNISTER JOINS N.E.M.A. STAFF

### Duties Will Include Affairs of Refrigeration Division

Leland P. Bannister, formerly Atlanta sales manager and district manager in Ohio for the Kelvinator Corp., has joined the staff of the National Electrical Manufacturers Association. His duties will include matters relating to the merchandising activities of the new refrigeration division.

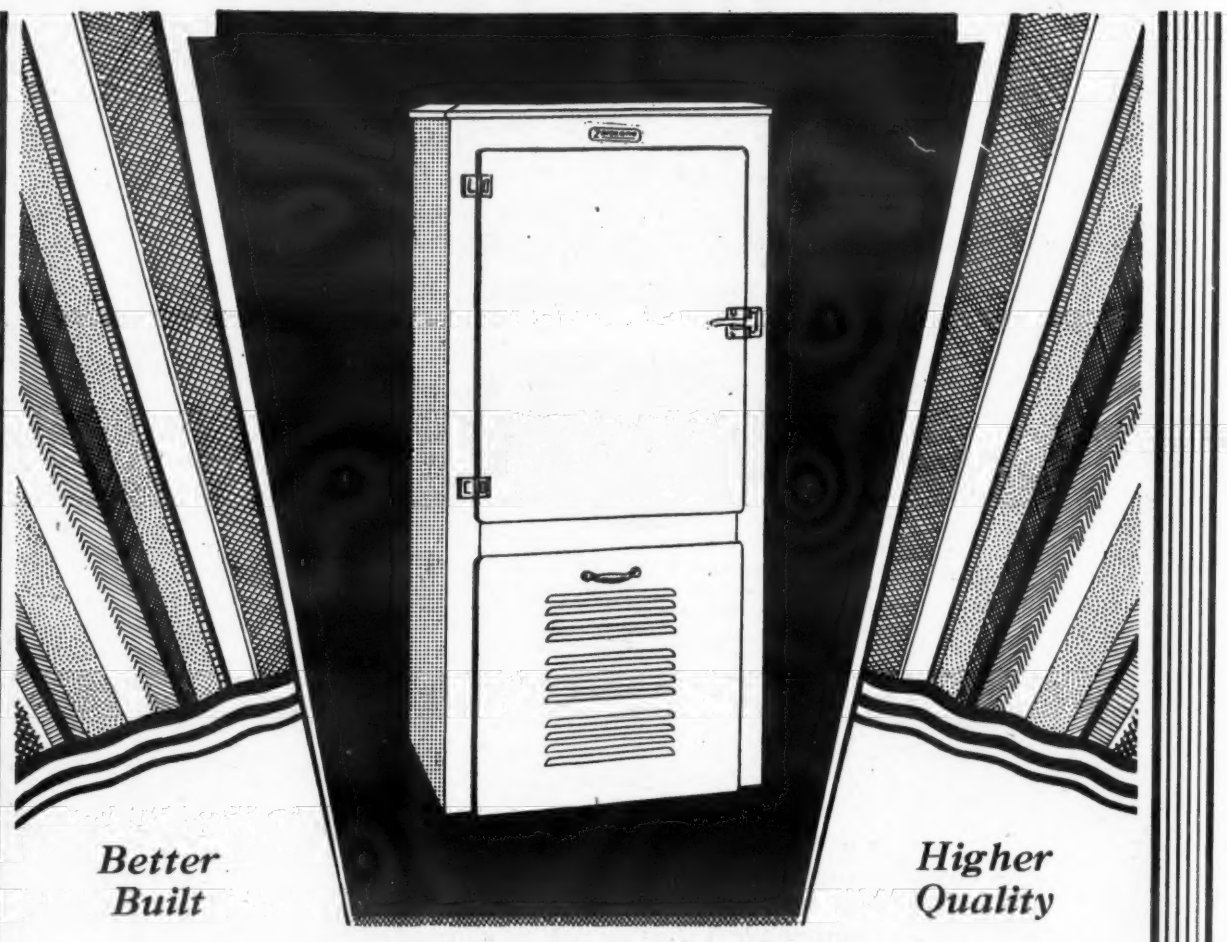
L. P. Bannister

Mr. Bannister has had extensive merchandising experience in the electrical appliance field, including organization work, training of salesmen and direction of refrigeration educational classes. After leaving the Kelvinator Corporation in 1927, he joined the Syracuse Washing Machine Corp. as district manager at Chicago. He successively held positions of district manager at Louisville, Ky., branch manager at Kansas City, Mo., and southeastern branch manager at Atlanta, Ga.

## GEORGIA POWER G.E. SALES HIT $431,930 MARK IN CAMPAIGN

Georgia Power Co., Atlanta, Ga., reports that on May 15 sales in the spring drive on General Electric domestic machines and Kelvinator commercial equipment totaled $431,930 or 57.59 per cent of the total quota. The campaign opened on May 1 and will come to a close on June 29. For the 52 actual selling days a quota of $750,000 has been set.

Atlanta is leading in sales with a total of $235,006, or 62.66 per cent of its quota. Orders turned in by the outside territories amounted to $196,924, or 52.51 per cent of their quota.


ZEROZONE

Distributors who are "refrigerator wise" and prospects who appreciate better than ordinary quality are quick to approve of the new, beautiful Zerozones. Zerozone is the product of engineers famous for their advanced developments in automatic refrigeration. With their knowledge and ability it is only natural that they should create so fine a line as ZEROZONE.

ZEROZONE at once signifies high quality—finest materials—master craftsmanship—precision manufacturing—skillful assembly—painstaking thoroughness—unequalled performance—quiet operation—and generous value.

ZEROZONE offers a comprehensive line—its completeness enables you to supply a unit to cover every refrigeration need—either for domestic or commercial use.

*There are still a few select territories open for live distributors. Write us for details.*

Zerozone
Lifetime Refrigeration

ZEROZONE CORPORATION—927 E. 95th STREET—CHICAGO

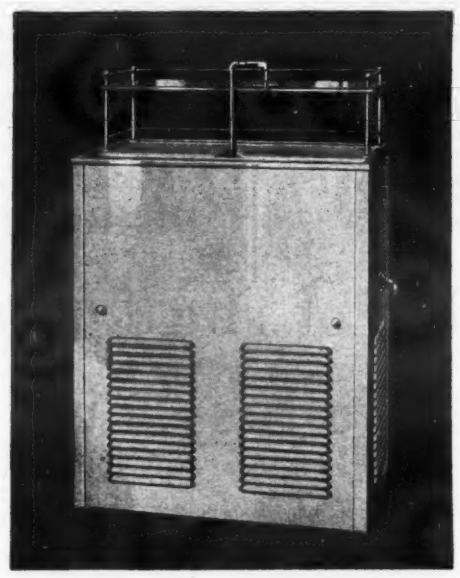
# KELVINATOR *presents*

## a complete line of industrial water coolers

# 26 Models

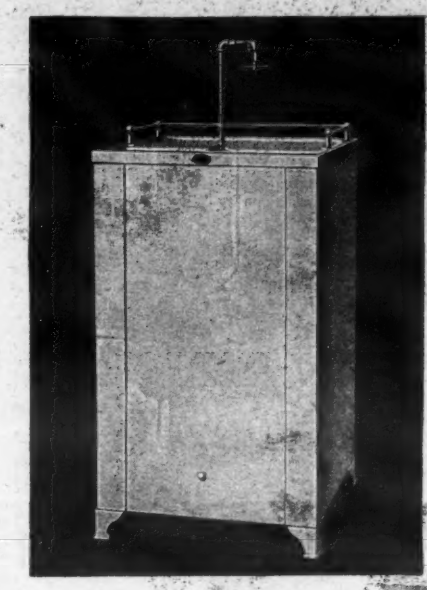
*Embracing the Direct-Flo Type For Every Industrial Need—Factories, Office Buildings, Hospitals, Theatres, Railway Stations, Clubs, Banks, Etc.*

**TYPE "B"**
**Single Head Cooler for Installation Remote from Compressor**
Full length, panel type cabinet with heavy vitreous china head recessed in top, self-closing stop, *2-stream mound-building projector and Taylor automatic stream control.* Cabinet finished in green lacquer. All exposed fittings Chromium Plate.



**TYPE "E"**
**Self Contained Cafeteria Cooler**
With cast iron porcelain enameled top, polished metal shelf with chromium plated side rails and standards, push up glass filler. Cabinet body finished in white lacquer. All exposed fittings Chromium Plate.

**TYPE "H"**
**Self Contained Single Head Cooler**
Furnished with heavy vitreous china bowl recessed in sloping top cabinet, self-closing valve, *2-stream mound-building projector and Taylor automatic stream control.* Cabinet finished in green lacquer. All exposed fittings Chromium Plate.



**TYPE "C"**
**Remote Cafeteria Cooler Less Glass Shelf**
Full length panel type cabinet, cast iron porcelain enameled top with rail on three sides, push up glass filler. Cabinet body finished in white lacquer. All exposed fittings Chromium Plate.

Placing Kelvinator dealers in an impregnable position for meeting the water cooling requirements of American industry and business, Kelvinator now announces the addition of 26 industrial water coolers to its line.

Unquestionably the most efficient and perfected type of water coolers on the market, these new Kelvinator models represent the combined engineering and manufacturing skill of Kelvinator and the Halsey W. Taylor Company, makers of the famous Halsey-Taylor "Direct-Flo" Coolers.

Under an arrangement with Halsey-Taylor, this line of water coolers will be marketed exclusively through Kelvinator Dealers. Every advanced feature pioneered by Halsey-Taylor, including the 2-stream projector, genuine heavy vitreous china fountain heads, porcelain enameled tops, and extra-large storage tanks with "more cool water per dollar" will be found on the complete Kelvinator line.

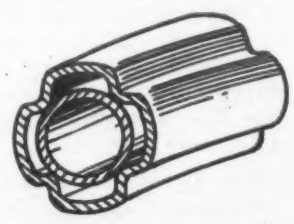
Built of steel, these de luxe cabinets are furnished in self-contained and remote types and are entirely automatic in operation. All are equipped with over-powered silent, reliable Kelvinator units giving the maximum amount of correctly cooled water for peak conditions, in shop, office or factory.

In addition to the 26 exclusive Kelvinator models announced above, the entire line of Halsey-Taylor cooling equipment, fountains and accessories is now available to Kelvinator dealers.

Regardless of the size or type of water-cooling equipment needed, Kelvinator can supply dealers with exactly the model desired. Kelvinator Industrial and Office Water Coolers offer a generous "Plus" sales opportunity that no electric refrigerator dealer can afford to neglect.

## *Outstanding Advantages of Kelvinator Direct-Flo Water Coolers*

Kelvinator-equipped Direct-Flo Electric Water Coolers are of the instantaneous type in which the transfer of heat from the water to the refrigerant is very rapid, resulting in high compressor suction pressures and consequently higher refrigerating capacity.



*The Direct-Flo System consists of two metal tubes as shown in illustration, one of which telescopes the other.*

The outer tube of the Direct-Flo System is grooved lengthwise with four grooves, of a depth such as to cause metal to metal contact with the inner tube. The thin annular space between the inner and outer tube is the space through which the water flows. The refrigerant flows in an evaporating stream and in a counter direction through the inner tube.

As the water is broken into a thin film in passing through the annular space between the tubes and as it is only separated from the evaporating refrigerant by the wall of the inner tube, instantaneous cooling results.

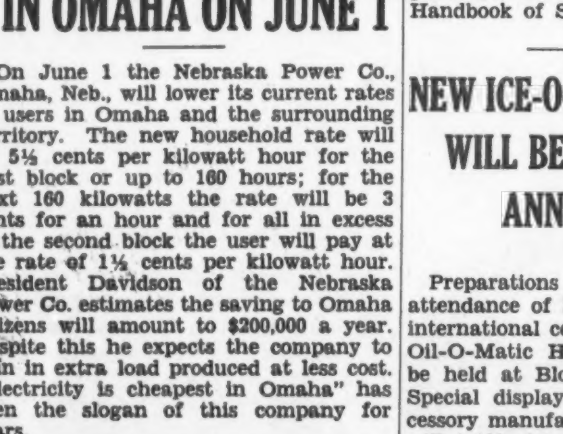
*These advantages are self-evident:—* 1. The shape of the outer tube is such that no damage can result to system from freezing. 2. The system is entirely closed and dry, which makes for sanitation. 3. The storage tank insures a full drinking stream at uniform temperature. 4. Thermostatic control insures starting and stopping only when there is a temperature change. 5. All drinking fountains are subject to peak demands. The storage feature takes care of this. 6. *More cool water per dollar invested.* 7. Recognized by leading engineers as the ultimate cooler. 8. Practical sanitary 2-stream mound-building projector an exclusive Halsey-Taylor feature.

**THE 2-STREAM PROJECTOR:** The drinking mound is formed by the converging of two streams of water, (as illustrated) thus setting up an interference in the stream, retarding the water at the apex of the arc and forming a localized drinking mound which makes it impractical to drink from any other point and is sanitary in the extreme. The fingers or lips cannot come in contact with or contaminate the source of supply. It is impossible to squirt the water.

**Complete information and literature forwarded upon request. The Kelvinator Industrial Line of Water Coolers will be on exhibition at the N. E. L. A. Convention, Atlantic City, June 3-7.**

# KELVINATOR CORPORATION, DETROIT, MICHIGAN

# Specially Fitted Truck Makes Rural Demonstrations Easy



The Midwest Refrigerator Co., Des Moines, Iowa, devised this cradle which facilitates demonstration of General Electric refrigerators to rural line prospects.

The Midwest Refrigerator Co., Des Moines, Iowa, has solved the problem of demonstrating General Electric refrigerators to farm line customers. With the aid of the "All Steel High Line Special" illustrated here this concern fulfills the slogan, "If the prospect can't come to see the product we take the product to see the prospect."

To overcome the problem of demonstrating electric refrigerators to rural prospects it was necessary to devise a method of properly carrying the refrigerator. An iron frame cradle padded with felt was constructed to fit the refrigerator. At the center of gravity, which was ascertained by a balance test, is a ball bearing roller which operates in a track fastened to the bed of the truck. When the truck is moving from one farm home to another, the refrigerator and cradle are secured in place by a hold down strap attached to the frame which fits over a bolt in the bed of the truck. Two wing nuts are used to secure this hold down strap.

In five minutes after arriving at the prospect's home the refrigerator is ready for demonstration. The short legs on the unit shown here are necessary due to the low height of the truck from the ground.

M. B. Mendenhall, of the Midwest Refrigerator Co., who travels the properties of the Central States Electric Co., Cedar Rapids, and the Iowa Railway and Light Corp., Cedar Rapids, recommended this method of selling to rural districts. He averages 125 to 150 sales per month to customers of these two utilities.

Both power companies have extensive farm line systems and maintain a few display rooms in which to show merchandise. With few display rooms and a highly developed rural electrification system the "All Steel High Line Special" has simplified the problem of selling electric cooling to these farm homes.

# NEBRASKA POWER TO CUT CURRENT RATES IN OMAHA ON JUNE 1

On June 1 the Nebraska Power Co., Omaha, Neb., will lower its current rates to users in Omaha and the surrounding territory. The new household rate will be 5½ cents per kilowatt hour for the first block or up to 160 hours; for the next 160 kilowatts the rate will be 3 cents for an hour and for all in excess of the second block the user will pay at the rate of 1½ cents per kilowatt hour. President Davidson of the Nebraska Power Co. estimates the saving to Omaha citizens will amount to $200,000 a year. Despite this he expects the company to gain in extra load produced at less cost. "Electricity is cheapest in Omaha" has been the slogan of this company for years.

This company conducted a three-day free cooking school in the city auditorium on May 15-17 as a booster for business. It also started a monthly promotion publication known as the Electric Service News. Articles on electric power, lighting, etc., will be contained in each issue. It will also carry advertising of various electric retail shops in Omaha.

Recently this company completed the first of its major improvement projects for 1929 as a cost of $150,000. This is a new high voltage line from the central station to South Omaha.

## N. E. M. A. Offers Handbook of Apparatus Standards

The National Electrical Manufacturers Association, 490 Lexington Ave., New York, N. Y., announces the publication of the "NEMA Handbook of Apparatus Standards" which includes the standards of electric control, measuring and power apparatus for the generation, distribution and utilization of electric energy.

This book was formerly known and published as the Electric Power Club Handbook of Standards.

# NEW ICE-O-MATIC UNIT WILL BE DISPLAYED AT ANNUAL CONVENTION

Preparations are being made for an attendance of 3,600 persons at the fifth international convention of the Williams Oil-O-Matic Heating Corp., which will be held at Bloomington, Ill., June 3-4. Special displays by equipment and accessory manufacturers at the convention will total close to forty.

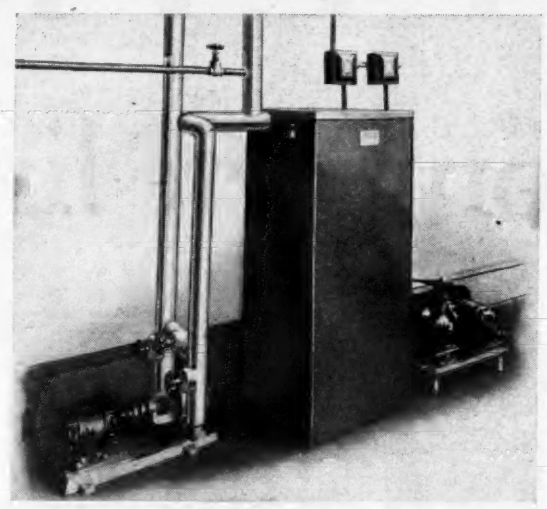
For the first time a larger and smaller condensing unit in the Ice-O-Matic line, as well as a complete line of cabinets will be displayed to dealers at the convention.

# ELECTRIC REFRIGERATOR SALES TOP TRIPLE APPLIANCE DRIVE OF CENTRAL MAINE POWER CO.

Approximately $28,000 worth of major appliances, consisting of 67 electric refrigerators, 23 electric ranges and 29 water heaters, were sold from April 1 to April 20 in the "Triple Appliance Campaign" which was staged by the Central Maine Power Co., Augusta, Me.


## Now THE Commercial Type Water Cooler...

**Spear's Ice Water Generator**



Typical Ice Water Circulating System

**COPELAND-FACTORY APPROVED**

Here at last is the Commercial Water Cooler to meet your demands for ice water at all times, from the smallest to the largest jobs encountered in the Electric Refrigeration Field.

High capacity, storage and peak loads are outstanding features of this Cooler.

For use with condensing units having Melting Ice Equivalents of 100 to 2,000 lbs. per 24 hours. Water storage in coolers ranges from 10 gallons to 100 gallons; peak loads up to 400 gallons over 2-hour periods.

For use in circulating systems and multiple hook-ups for all types of commercial work.

*WRITE OR WIRE FOR LITERATURE*

**JAMES SPEAR STOVE & HEATING CO.**

1823 Market Street, Philadelphia, Pa.



## 15% Reduction in *Running time* is only One of the *Many Selling Advantages* of Dry-Zero Insulated Cabinets...

SALES . . Turnover . . Profits. After all that is what you are in the refrigeration business for. You probably selected the unit which you felt had the most outstanding mechanical advantages . . the unit which you felt would bring you the greatest business. Isn't it just as logical, therefore, to consider the cabinets into which these units go, in exactly the same business-like manner? . . *The operating efficiency of the unit itself is largely determined by the efficiency of the cabinet.*

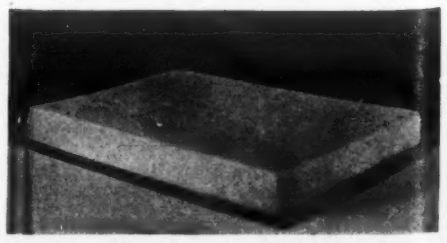
15% reduction in running time is only one of the many selling advantages of a Dry-Zero Insulated Cabinet. That is due of course to the fact that Dry-Zero is the most efficient insulant in commercial use, a fact proved by U. S. Bureau of Standards tests.

But there are others just as important. Dry-Zero Insulated Cabinets are free from troublesome insulation odors . . Dry-Zero is without odor. It is one of the cleanest, most sanitary insulants available. It is not affected by moisture and will not permit the development of any fungic growth.

The ideal condition which Dry-Zero Insulated Cabinets create . . preserve the operating unit of the refrigerator. Less heat enters the box . . and consequently the machine needs to operate less frequently to service it . . saving unnecessary wear and tear.

Then to top it all—Dry-Zero Insulated Cabinets are permanent in their efficiency. They will function with undiminished satisfaction over a longer period of time. Dry-Zero will not rot . . void . . or otherwise deteriorate.

Consider these points. . . They are of vital importance to you. . . They give you a margin of advantage that means increased sales. Dry-Zero Insulated Cabinets will make any unit more perfect.



The Dry-Zero Pliable Slab is easily installed and hermetically sealed in a single operation by pressure alone, due to the specially designed and patented sealing flange, found only in Dry-Zero. There is no waste or loss of time or labor. Dry-Zero will not swell, crack or settle.

**Dry-Zero Corporation**

130 N. Wells St., Chicago, Ill.

**DRY·ZERO**

CABINETS BY

Seeger

SAINT PAUL

Space 664 to 668

at the N. E. L. A. Convention

Municipal Auditorium, Atlantic City

June 3rd to 7th

Be sure to see this comprehensive exhibit of Modern Refrigeration Cabinets for Residence and Commercial Uses

SEEGER REFRIGERATOR COMPANY

SAINT PAUL, MINNESOTA

*We endorse the National Food Preservation Program initiated by the Refrigeration Committee of The National Electric Light Association.*

# ELECTRIC REFRIGERATION NEWS

*The Business Newspaper of the Refrigeration Industry*

PUBLISHED EVERY TWO WEEKS BY

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MAY 22, 1929

## The Central Station, The Electric Refrigerator and Fair Trades Practice

FROM the best figures available it appears that there were more household type electric refrigerators sold in the year 1926 than were sold in all the preceding ten years during which the industry was incubating. The sales for 1927 showed a fifty per cent increase over 1926. Nineteen twenty-eight was thirty per cent ahead of 1927, and 1929 is beating 1928 by fifty per cent.

For the first time in the history of the business, manufacturer report that prospective purchasers are actually wandering into their stores without solicitation other than through advertising appeal. Heretofore, practically every customer has had to be dug up and dragged out by the hardest kind of sales effort. This indicates a degree of consumer acceptance which almost assures an increase of fifty per cent for 1930 compared with 1929. At this rate the annual industry sales of household type machines will approximate one million units in 1930 or about $250,000,000 at the consumer's price. This is exclusive of all commercial type refrigerators which should account for an additional $150,000,000.

A volume of this magnitude presents something rather new in electric appliances for central station men to think about. It deserves and will require very serious consideration and the most careful treatment.

The unfortunate practices of some utility companies which give longer terms or lower prices or special concessions that a self-supporting merchant, existing without benefit of other revenue cannot possibly meet, are naturally due for widespread condemnation in proportion to the size and importance of the business. As this is in fact the only kernel of merit in the voluminous charge against central station merchandising methods it would be a pity not to correct it. Is there no way of making the few offending companies which have so far failed to see the iniquity of their methods understand the extent of the damage they are doing to the industry?

A price cut on an article with a small unit price is relatively less important. On an automobile or an electric refrigerator it is of major importance. There is not a merchandising man in the country with any experience in nationally advertised and branded goods who will not instantly recognize the demoralizing and devastating effect of price cutting on a product like an electric refrigerator, whether that cut is in the form of discounts, longer terms, trade-in allowances, or any other special concession.

The problem is not one of trying to find out what is right. The National Electric Light Association has already adopted the following "Declaration of General Merchandising Principles":

> Since the efforts of the power companies form the only continuous means of promoting the sale of electrical appliances, we believe the best interests of manufacturer, dealer and consumer require the continuance of the merchandising activities of power companies, and that the following general principles should be observed:
>
> 1. All discussions of the problems of the relations of power companies and dealers selling electrical appliances must be based upon proper and adequate service to the ultimate consumer.
>
> 2. There should be a segregation of the accounting of the merchandising departments of power companies from their public utility functions and all items of expense incurred in the merchandising of appliances should be charged to the merchandising activities.
>
> 3. It is recognized, however, that expenses incurred in the pioneering of appliances which have not yet met with sufficient public acceptance to be merchandise items in the stocks of local progressive dealers, and general advertising for the development of the market for appliance service, should properly be charged to the promotion accounts of the power companies and not charged to merchandising.
>
> 4. This conference recommends to power companies and independent dealers the necessity of constructive cooperation in their local fields for the better development of the electrical appliance business.

It remains only for those who are causing the trouble to practice what they preach and to join with the others in individually observing the principles which they collectively endorse.

## Kelvinator Tied-in With Child Health Program by Power Company

**This float was used by the Northern Indiana Power Co. Noblesville office in a Child Health parade recently. It received much favorable comment.**

## John E. Starr Analyzes Safety Code Being Considered by District of Columbia

### Brief Filed With Engineer Commissioner Compares Proposed Regulations With National and New York City Codes

(1.) A safety code is not expected to provide for every contingency. Such an attempt would make a bulky and unwieldy ordinance, imposing conditions impossible in many cases. The best that can be done is to provide a code giving a reasonable degree of protection to life and property.

Unforseen and unforseeable events will happen in any department where machinery is operated and the best that can be done is to minimize the danger to a reasonable degree. In spite of the most rigid requirements of the law, boiler accidents are not unheard of where life has been lost and property injured. Though there exists everywhere stringent traffic regulations, loss of life and injury to limb is of almost daily record in the automobile industry and operation. And yet nobody argues the suppression of the steam boiler or the automobile.

(2.) The principal items affecting the safety of refrigerating apparatus are:
(a) Quantity of refrigerant employed.
(b) Operation attendance.
(c) Rupture.

(3.) If "c" happens either from defect, fire or carelessness, the bad results are in proportion to "a". The quantity of fluid employed in any one locality increases the danger of life and limb and property in proportion to the increase of said quantity. If most fluids used for refrigerants escape by reason of leakage or rupture and add to the surrounding air a proportion of their gases, there may be a two-fold disastrous result.

(1) The air may be rendered unfit to be taken into the body by respiration; result—death, personal injury or panic and the collateral consequences of panic in a crowd.
(2) Exclusion of firemen from the vicinity of a fire and consequent destruction of property which destruction might be avoided if firemen were allowed to get at the fire and put it out.
(3) Injury to life, limb or property by reason of explosion of confined gases already at pressures above the atmosphere, or of the increase in pressure of confined gases by heat as in case of a fire in the building.

(4.) The first and second contingencies are manifestly affected by the amount of refrigerant in any one locality, as the greater the amount of refrigerant escaping to the surrounding air, the greater is the risk of the air being rendered dangerously unfit.

The third contingency of injury by explosion finds its origin in imperfect manipulation, or in absence of safety devices, or in fires which, despite of all, will occur in buildings where the combined gas is situated. For example a large percentage of accidents has resulted from failure of the operative to keep open the pipe leading from the power imposing element (discharge valve from compressor or absorber) to the condenser.

(5.) Not so many accidents to person have occurred directly by reason of over-pressure induced by heat (as in a building fire) but serious consequences result from rupture so caused by preventing firemen from reaching the fire.

(6.) It is sought in a safety code to diminish the danger arising from the above mentioned causes and provisions have been made in New York ordinances, Sec. 222, A. S. R. E. Code, securing proper material to withstand the pressure of various refrigerants and rules for their test.

(7.) Safety measures provided for in New York City and A. S. R. E. Codes not provided or imperfectly provided in Washington Code:

No provision for flammability of brine provided for in New York City, 219 c.
No provision re possible panic. See N. Y. C., a and b.
Ventilation—More specific in New York Code. See 220.
Open flames—No provision re open flames. See N. Y. C., Sec. 221-1.
Test not specific as in N. Y. C., Sec. 222.
No provision for charging connection. See N. Y. C., Sec. 223 C.
No provision valve arrangement. See N. Y. C., Sec. 223 B.
No provision gauge glass. See N. Y. C., Sec. 223 2-A.
No provision safety valves or fusible plugs. See N. Y. C. 224 all, 225 all.
No provision ammonia mixture in over 1,000 lb. systems. See N. Y. C. 224-3 a, b, c, d, e, f, g and h.
No provision for protection of firemen.
No provision for safety valves on over 12 lb. See N. Y. C., Sec. 226 a, b, c, d, e.
No provision relief pipe of safety valve. See N. Y. C., Sec. 225 and 226.
No provision tank. See N. Y. C. 226-2-6.
No provision mask or helmets. See N. Y. C., Sec. 227, a, b, c.
No provision signs. See N. Y. C. 227-2-a, b, c.
No provision storage refrigerant. See N. Y. C. 227-2 a, b, c.

(8.) Except definition and authority given to Plumber to define repair or extension and to shut down plant till repair is made (g. p. 2. Wash.) there are no specific provisions for safety in the Washington Code. There is too much left to judgment of "Plumber" or Fire Marshal who, presumably, are not expert judges and might arbitrarily and unnecessarily shut down plants, causing great loss, same conclusion of h, page 2.

**Classification**

(9.) 218 N. Y. Code. Lack of desired uniformity Washington with other codes, leading to confusion.

Note: Class A in Washington Code covers machines in Class C, N. Y. and A. S. R. E. Code; Class H, Washington, partly covered in Class A and B, N. Y. C. Code and A. S. R. E. Code. Detail of differences are as follows:

Wash.
Class A—Individual units under 10 lbs. Fee $1.
Class B—Extension units, under 10 lbs. $1.00, $1 add.
N. Y. C. See 218.
Class C—Under 205. Fee. No permit required. See 216a.
A. S. R. E.
Same as N. Y. C.

Wash.
Class C—20 to 30 lbs. Fee $1.00 and $1.00 add.
N. Y. C.
Class B—Over 20 lbs., under 1,000 lbs. Fee $20.00.
A. S. R. E.
Class B—Same as N. Y. C.

Wash.
Class D—50 to 100 lbs. $5.00, add. $1.00 for expansion.
N. Y. C.
Class B—20 to 1,000 lbs. Fee $10.00.
A. S. R. E.
Class B—Same as N. Y. C.

Wash.
Class E—Air conditioning appr. Not necessary. Covered by others.

Wash.
Class F—Not necessary. Covered by others.

Class G—Commercial Ice Machines. Fee $10.00.
N. Y. C.
A or B—Covered by A or B in N. Y. City Code.
A. S. R. E.
A or B—Same as N. Y. C.

Wash.
Class H—Ice Plants.
N. Y. C.
A or B.
A. S. R. E.
A or B.

*(Continued on page 22, column 3)*

## WILLIAMS AGREES WITH STARR ON CODE

### Stresses Importance of Uniform Terminology

New York, May 7, 1929
Colonel W. B. Ladue, Corps of Engineers
United States Army
Engineer Commissioner, D. C.
Washington, D. C.
Dear Colonel Ladue:

At the public hearing held on April 18th you requested me to submit a memorandum or brief pointing out wherein the proposed Washington Code differs from the A. S. A. and the Fire Underwriters' Codes. I stated that I would not have an opportunity to do this personally within the time allowed. Mr. McKenna, representing the Frigidaire, Kelvinator and Copeland Companies at this meeting, volunteered to write such a brief and send me a copy which I understood I would have an opportunity of commenting on. Up to this writing, I have had no word from Mr. McKenna.

I have, however, received a copy of the brief on this subject submitted to you by Mr. John E. Starr which, in my judgment, covers the matter in a masterly manner and I am writing to register by full agreement with Mr. Starr's expressed views.

The importance of making the code definite and free from all ambiguity in its provisions can scarcely be exaggerated. With this in view, I would earnestly recommend that the same terminology be employed in the Washington Code as is used in the A. S. A. and New York City Codes for the various parts comprising refrigerating systems.

With regard to the Underwriters' Code, to say the least, it is very loosely drawn; it is intended to cover only "the type of systems commonly known as multiple refrigerating systems, which supply refrigerant direct to evaporators in various parts of a building"; it is in bad taste as the National Board of Fire Underwriters was and still is a member by duly appointed representation of the Refrigeration Sectional Committee which adopted the A. S. A. Code; it was compiled and adopted in the interest of a small group of manufacturers of multiple systems; manufacturers and dealers are being solicited to urge its enactment in ordinances in various municipalities on the ground that it will relieve them from liability in case of accident and at the same time will impose practically no restrictions on the installation of multiple systems.

The A. S. A. Committee voted overwhelmingly against permitting direct multiple systems containing in excess of 20 lbs. of an irritant or flammable refrigerant above the first (or ground) floor of any building unless the premises are used exclusively for ice making and/or refrigeration and/or for chemical purposes.

This is unquestionably a wise and safe provision. Extending a webwork of piping containing poisonous and/or flammable gases under pressure through multiple dwellings is neither economically necessary or safe. It simply amounts to subordinating safety to commercialism.

The individual unit properly constructed, equipped with simple safety devices and containing from 1 to 5 lbs. of refrigerant is practically free from hazard and such units are now available in numerous differant makes and at moderate prices.

Again referring to the importance of making the code requirements definite, the former New York City Code was particularly lax in this respect. This permitted the City inspectors to make their own rules to a large extent and these were far from uniform and varied considerably from year to year.

For instance, extensive plant changes made at the Inspector's directions to meet the code as he interpreted it one year were not acceptable to him the succeeding year, necessitating further changes which involve large expenditure. This kind of thing continued over a period of about 5 years in some of the installations with which my Contracting firm was employed. On the other hand, the present code is definite. The manufacturer or installation contractor may know in advance what will and what will not meet its requirements and is no longer subjected to caprice or mis-judgment of the City Inspectors.

I again most earnestly recommend the adoption of the A. S. A. Code, particularly as it relates to other than multiple systems. If in your judgment such systems should be permitted in the District of Columbia, then it would remain simply to draft regulations that will insure the highest measure of safety that may be practicable for them.

Very truly yours,
E. T. WILLIAMS.

## NEW YORK OFFICE OF NEWS WILL BE IN GRAYBAR BLDG.

### Frederick W. Brack Is Appointed Advertising Manager

ON June 1 an office of Electric Refrigeration News will be opened at 1950 Graybar Building with H. A. DeLashmutt in charge as Eastern manager of the paper. Frederick W. Brack has been appointed advertising manager of the News with headquarters in Detroit succeeding Mr. DeLashmutt. Plans, previously announced, to open an office in Philadelphia will be held in abeyance for the present although Mr. DeLashmutt will continue his residence in that city.

Mr. Brack, the new advertising manager, is a graduate of Brown University and was for four years connected with the Livermore & Knight Co. of Providence, R. I. as New York representative.

### Panfilo Trombetta Now With Allen-Bradley Co.

Panfilo Trombetta, formerly engineer in charge of development and design in the industrial control department of the General Electric Co., has recently been appointed manager of the control research department of the Allen-Bradley Co., Milwaukee, Wis.

# MORE PROFITS *in sight for Electrolux Dealers*

## Sales for first 4 months of 1929 smash previous records

### *Nation keenly interested in GAS refrigeration, survey shows... now is the time for dealers to cash in*

NOW, at the opening of your busy summer refrigeration season, public attention is spotted on Electrolux as it never has been before.

In New York City, the most intensely competitive market in the world, apartment builders alone have bought more than 11,500 Electrolux units in the last seven months. Dealers in every part of the country report record-breaking sales in the first four months of 1929.

A convention of Electrolux dealers and salesmen from Connecticut, Rhode Island, and western Massachusetts held recently was attended by more than 350 representatives.

These few facts from a recent survey point which way the wind is blowing. People are finding out about GAS refrigeration . . . discussing it . . . all over the nation. Making ice from heat is a startling idea. It rouses their attention . . . appeals to their curiosity. And nation-wide magazine and newspaper advertising is constantly stimulating this interest.

Get your share of the profits from this widespread interest in Electrolux. Change curiosity into constantly increasing sales. Tie up with Electrolux national magazine advertising by using window cards, direct mail campaigns, local newspaper advertising, with mats and electros we have specially prepared for you. Write or wire today for the dealer helps you need to Servel Sales, Inc., Evansville, Indiana.

#### *Where Franchise Is Open*

In certain territories, Electrolux dealer franchises are open at present. If you are in a position to take on this full-profit, no-service line, or soon will be, write or wire today to Servel Sales, Inc., Evansville, Indiana.

**APARTMENT FIELD OFFERS RICH OPPORTUNITY** to alert Electrolux dealers. Illustration shows some of many fine modern apartments in metropolitan New York equipped with gas refrigerator. Apartment sales in New York alone were 11,542 units in last 7 months.

**GETTING READY FOR THE SUMMER RUSH.** Photo shows part of the 350 Electrolux dealers and salesmen from three states who met recently at Hartford to discuss plans for supplying summer demand for Electrolux refrigerators. Every indication points to largest sales in Electrolux history, dealers agreed.

**ELECTROLUX IS NEWS!** . . . six pages of it, in this New Haven newspaper.

## See Booth 165-169

*at National Electric Light Association Convention, Atlantic City, May 30*

When the National Electric Light Association convention opens at Atlantic City on May 30, drop in and see our special display at Booth 165 and learn what Electrolux plans are for the rest of 1929.

# ELECTROLUX THE GAS REFRIGERATOR

MADE BY SERVEL

# A. E. BETTIS ELECTED PRESIDENT MIDWEST DIVISION OF N. E. L. A.

### More Than 400 Delegates Attend 3-Day Meeting in Omaha

MORE than 400 delegates and many noted visitors attended the three-day session of the Midwest Division of the National Electric Light Association in Omaha, April 24, 25 and 26. All sessions were held at the Hotel Fontenelle. The association president, Ralph T. Smalley, Lawrence, Kan., who is also vice president of the Kansas Electric Power Co., presided.

Wednesday at 10 a. m., A. E. Bettis, vice president of the Kansas City Power and Light Co., gave his reply to the welcoming address of Mayor James C. Dahlman. This was followed by the report of Nebraska Managing Director Thorne Brown. Among other things Mr. Brown made the statement, "A perusal of testimony in the investigation of the power industry by the Federal Trade Commission does not disclose anything for which apology should be made. Legislatures have been meeting in every state of the division, and in each the industry has been under fire, chiefly because it has now thrown aside swaddling clothes and ranks among the giants of the industrial world."

Other speakers Wednesday were: P. S. Arkwright, Atlanta, Ga., president of the National Electric Light Association; P. B. Zimmerman, sales manager of the General Electric refrigeration department; N. H. Boynton, Cleveland, Ohio, sales manager of the National Lamp Works; H. J. Gondon, Chicago, Utilities Publication Co.; Marshall E. Sampsell, Chicago, president of the Illinois Service Co., and C. W. Place, Chicago, of the General Electric Co.

C. W. Place gave the visitors something to think about in his talk on electrification of the farms. "One possibility for cheap farm power lies in the establishing of small hydro-electric plants in the rural communities," said Mr. Place. "These could be used in the Spring and Fall to produce electric energy for farm work and in the Winter as auxiliary of the city lighting systems. It is difficult to make hydro-electric potentialities in this territory because of extremes in precipitation and the wide seasonal variations in the flow of streams."

Thursday, Don M. Stearns, Sioux City, Iowa, chairman of the Midwest Division Public Relations Committee, stated, "We have been on the defensive this year but that time has now passed, we have nothing to hide, in fact all the work along public lines has been one of how best to serve the people with the least possible cost."

Former Governor Sam Baker of Missouri was unable to be present and his speech was read by A. L. Pettit, Jr. Mr. Baker stated, "I believe the time has come when there should be a course of study in all schools on public utilities and their service and relation to that public." Others heartily agreed with Mr. Baker. Besides Nebraska and Missouri, Iowa and Kansas are included in the Midwest Division of the Association.

J. E. Davidson, president of the Nebraska Power Co., with headquarters in Omaha, stated, "We do not mind being investigated by any federal commission, state legislature, or municipal body. We are proud of what we have accomplished in this industry in less than a quarter century. There have been some mistakes of individuals and companies, but the electrical industry is as clean as any which does business in the United States."

Clarence Davis, Holdredge, Neb., spoke of the various bills before the Nebraska legislature and stated, that of the entire lot, but one was passed and that permits cities of the first class to build rural service lines to a distance of 25 miles beyond city limits where there is a guarantee of 15 per cent on the cost of construction. This is looked upon as a movement for municipal ownership in the state.

Thursday evening a big banquet was held at the Hotel Fontenelle.

Election of officers Friday resulted in electing A. E. Bettis, Kansas City, president; H. R. Mackinnon, Nebraska Power Co., Omaha, first vice president; C A. Leliand, Des Moines, second vice president, and Thorne Brown, Lincoln, was re-elected managing director of the Midwest Division.

Among the convention visitors was Judge Charles W. Applegate, Schenectady, N. Y., vice president in charge of the legal department of the General Electric Co.

## EMPIRE DISTRICT ELECTRIC SOLD 101 UNITS IN APRIL

One hundred and one electric refrigerators were sold by the new business department of the Empire District Electric Co., Joplin, Mo., during the month of April. Up to May 1, 230 machines have been installed this year. The value of the equipment placed during April is estimated at $31,090 with a yearly revenue of $4,524.

# Kelvinator Officials Are Hosts To Edison Men on Aerial Tour

Just Before the Take-off at Ford Airport

Officials of the Kelvinator Corp., Detroit, were hosts on May 7 at an aerial luncheon and sightseeing tour to members of the electric refrigeration committee of the Association of Edison Illuminating companies, which met at a convention in Detroit at that time.

The party left the Ford airport at 12:30 p. m. in a tri-motored Ford-Stout plane, soared over the Kelvinator plant and flew to Grand Rapids for an aerial inspection of the corporation's plant there. Luncheon was served aboard the plane en route to Grand Rapids. The photograph shows the group before the take-off at the Ford airport.

Standing, left to right: J. S. Sayre, domestic sales manager, Kelvinator; R. H. Tillman, new business and power sales manager, Consolidated Gas and Electric Co., Baltimore, Md.; George W. Mason, Kelvinator president; C. K. Nichols, manager of industrial power, New York Edison Co.; A. D. McLay, sales engineer, Detroit Edison Co., and Campbell Wood, manager of the utilities division of Kelvinator Corp.

Kneeling, left to right: H. W. Burritt, Kelvinator vice-president in charge of sales; Earl Lines, advertising director for Kelvinator; John D. Noyes, assistant to the vice-president, Detroit Edison, and Guy Pollard, Kelvinator's chief inspector.

## TARIFF BILL HAS NEW CLAUSE RELATING TO ELECTRICAL APPLIANCES

Recommendations originally included in the tariff brief prepared by the Tariff Committee of the National Electrical Manufacturers Association have been followed in general in the bill which was introduced by the Ways and Means Committee of the House on May 7.

The proposed changes in the electrical clauses of the present tariff law were made with a view to correcting certain inequalities. A new paragraph, designed to provide more adequately for electrical equipment and related articles, reads as follows: "All articles suitable for producing, rectifying, modifying, controlling or distributing electrical energy; electrical telegraph, telephone, signaling, radio, welding, ignition, wiring, therapeutic, and X-ray apparatus, instruments and devices, and articles having as an essential feature an electrical element or device, such as electric motors, fans, locomotives, portable tools, furnaces, heaters, ovens, ranges, washing machines, refrigerators and signs; all the foregoing and parts thereof, finished or unfinished, wholly or in chief value of metal and not specifically provided for, 40 per cent *ad valorem*."

## ST. JOSEPH UTILITY SELLS 222 MACHINES IN 90 DAYS

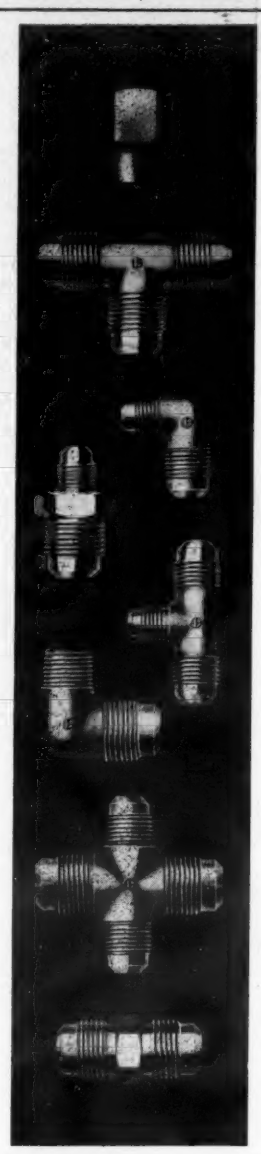
During the month of April the new business department of St. Joseph Railway, Light, Heat & Power Co., St. Joseph, Mo., sold 95 domestic and 5 commercial electric refrigerators. In the 90 day refrigerator campaign which ended on April 30, 222 electric refrigerators were sold. Jack LeMaster was high salesman for the month of April with sales amounting to $5,765. In the 90 day drive a quota of 160 refrigerators had been set-up as the goal.

## J. M. OBERC NOW ASSOCIATED WITH F. B. RILEY AT DETROIT

J. M. Oberc, for several years associated with Kelvinator Corp. as secretary to the vice president in charge of manufacturing, and later as assistant production supervisor, is now associated with F. B. Riley, Standard Refrigerating Appliances, 320 Beaubien St., Detroit, factory representatives of the Fedders Manufacturing Co., of Buffalo, N. Y., Automatic Reclosing Circuit Breaker Co., Columbus, Ohio, and the Clifford Manufacturing Co., of Boston, Mass. Mr. Oberc will be in charge of the Detroit office.

### New Electrolux Distributors Open Show Room in Oklahoma City

The McEwen-Halliburton Co., Oaklahoma City, recently appointed distributors for Electrolux refrigerators in the Oklahoma City territory, opened their display room to the public on April 15.

# Seepage-Proof
## Pipe and Tube Fittings for Automatic Refrigeration

Manufacturers of automatic refrigeration apparatus are contributing, more than any other agency, to the great task of keeping the Nation's food in perfect condition.

The importance of this work lies in its direct contribution to general health and efficiency.

We are pleased to be identified, through the manufacture of seepage-proof fittings, with this movement.

*Commonwealth Brass Fittings are BUILT RIGHT—TO STAY TIGHT*

Commonwealth Brass Corporation
5835 Commonwealth Ave. Detroit

COMMONWEALTH BRASS FITTINGS

# They are Worth Their Weight in GOLD

HAVE you got a list of names and addresses of people to whom you have sold electric refrigerators? They are worth their weight in gold.

Department stores, specialty stores, manufacturers, in fact, any business concern will spend huge sums of money to build a list of satisfied customers. Because a satisfied customer represents a constant source of profit. A satisfied customer will come back—and it's the second and third sale that shows the greatest profit.

### *What Else Have You Got to Offer Your Customer?*

What are you doing to cash in on that valuable list of customers? Now that their refrigerator is installed, what else have you to sell them? Here is an opportunity for you to make more and better business friends. Here is a chance for you to make a second sale to each one of your customers.

### *Sell the Quiet May*

The people to whom you have sold electric refrigerators are prospects for the Quiet May, and the people who buy Quiet Mays will buy refrigerators. That is why the Quiet May Automatic Oil Burner and the refrigerator make an excellent team. One helps the other, and selling a Quiet May is not like selling a $5.00 accessory. The Quiet May is in relatively the same price class as the refrigerator, with even greater profit possibilities.

You probably know all about the Quiet May. Perhaps you know some Quiet May Dealers who are participating in the Factory Profit-Sharing Plan. This money-making opportunity is open to you, too. In addition to the substantial profits you can make selling the Quiet May, you can share in the profits made by the manufacturer.

### *See for Yourself*

The Quiet May will be on display at the N. E. L. A. Exhibition at Atlantic City, May 31st to June 7th. Visit booth No. 219 and see for yourself the simplicity of this burner. Get our literature that fully covers every phase of the Quiet May—and be sure to ask the factory representative at the booth to show what other electric refrigeration dealers have done with the Quiet May.

What these men have done, you can do—with the Quiet May.

# May Oil Burner Corporation

Baltimore Maryland

MAY OIL BURNER CORP.
Baltimore, Md.

GENTLEMEN:

I will not be able to visit your exhibition at the N. E. L. A. Exhibit. Please send me full information on how the Quiet May will fit into my electric refrigeration business.

*Name* _____

*Address* _____

E. R. N. 5-22-29

# Wisconsin Good-Will Train Carries McCray Cases on 3,186 Mile Tour

Interior of car showing Lipman unit in foreground and McCray case in background.

The two McCray see-all cases illustrated here were part of the equipment of the Wisconsin good-will train that made a tour of 3,186 miles, Feb. 25 to Mar. 9. At the right of photograph can be seen a Lipman unit which refrigerated the two cases. This train was conducted under the direction of Lee I. Yorkson, secretary of the Chamber of Commerce, Wausau, Wis.

This train passed through 13 states and stopped at 17 cities. It consisted of five baggage cars and sleepers. The baggage cars were equipped for exhibits, featuring agricultural, dairy, industrial, recreational and educational advantages. At all stops on the tour the exhibit cars were opened for public inspection and thousands of people saw them en route. Butter and cheese were on display in the two McCray display cases.

# ELECTROLUX PLAYERS NOW ON AIR EACH NATIONAL HOME HOUR

### Made Radio Debut Over National Broadcasting Chain, May 15

THE merits of gas refrigeration are being presented in playlet form each Wednesday morning over the national broadcasting system from station WEAF, New York. The Electrolux players made their air debut at 10:30 o'clock, Eastern Daylight Saving Time, on that day, in a domestic skit.

These playlets, sponsored by Servel Sales, Inc., will be a regular weekly feature of the national home hour, the biweekly program which has been built up in the last few months. Although there will be no continuity, the same characters will appear throughout the series.

The initial playlet introduced George and Mil Patterson, a young married couple living in the suburbs. George and Mil differed on such subjects as the sourness of the cream, the softness of the butter, the vegetables being wilted, and the drinking water being warm.

Each playlet has been written to get across in the form of entertainment the economy, silence of operation, and absence of moving parts of the Electrolux.

The broadcasting feature is designed to complement newspaper and national magazine advertising. The programs will be heard over WEAF, New York; WEEI, Boston; WTIC, Hartford; WJAR, Providence; WTAG, Worcester; WCSH, Portland, Me.; WFI, Philadelphia; WRC, Washington; WGY, Schenectady; WGR, Buffalo; WCAE, Pittsburgh; WEAR, Cleveland; WWJ, Detroit; WSAI, Cincinnati; WHO, Des Moines, and KFKX, Chicago.

# COPELAND CONDUCTS SALES SCHOOL IN BIRMINGHAM, ALA.

L. J. Melvin, sales instructor, D. B. Henry, commercial engineer, both of Copeland Products, Inc., Detroit, and Dan R. Hill, Copeland zone manager for Alabama territory, conducted a sales school in Birmingham on May 6.

They were assisted by S. G. Gray, of the Seeger Refrigerator Co., and H. P. Nathan, manager of the Birmingham branch of the Commercial Credit Co., Commercial and domestic refrigeration were discussed at the school.

# WESTINGHOUSE BUYS McGRAW ELECTRIC CO., OMAHA

The McGraw Electric Co., Omaha, Neb., will be operated by the Westinghouse Co., after May 1, announcement was recently made to stockholders of the McGraw interest. The sale of the McGraw Co. includes both the supply house in Omaha and at Sioux City.

### Lynn Kelvinator Distributor Changes Name

Ernest E. Nelson announces a change in the name of Nelson & Wells Co., Kelvinator distributors in Lynn, Mass., to Nelson-Russell, Inc. The personnel of the organization which remains unchanged, is Ernest E. Nelson, president and treasurer; Amos E. Russell, vice-president and sales manager, and Louis Cunningham, service manager. For the period from October, 1928, to May, 1929, they report an increase in sales of more than 300 per cent over the same period a year ago.

# CHICAGO SECTION OF A. S. R. E. HEARS TALK ON MODERN ICE PLANT

The Chicago section of the American Society of Refrigerating Engineers held its regular meeting and dinner at the Engineers Club in Chicago on Tuesday evening, April 30. Harry R. Halterman, president of the Chicago section, presented a paper on "The Modern Ice Plant" at the technical session which followed the dinner.

O. A. Anderson, supervising engineer of Armour & Co., recently elected vice-president of the Chicago section, A. S. R. E., gave a short talk concerning the welfare of the engineering profession. E. H. Mack, Vilter Mfg. Co., extended greetings of the Milwaukee section. H. G. Veneman, Baker Ice Machine Co., and F. W. Kenkel, ELECTRIC REFRIGERATION NEWS, were introduced.

Factors which ultimately produce a high quality, marketable ice, consistent with minimum costs was the theme of the paper read by Mr. Halterman. A discussion followed the paper. The meeting, which was declared to be one of the most interesting held by the Chicago section, was adjourned after a rising vote of thanks had been given Mr. Halterman.

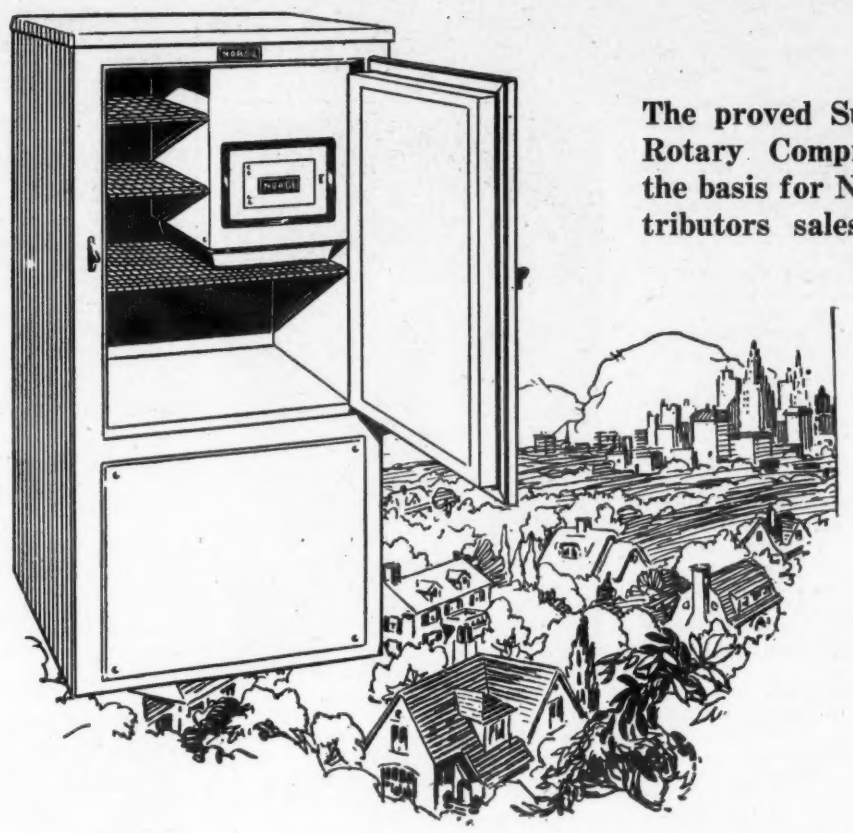
# KELVINATOR, McCRAY, ESCO, FACTORY MEN TALK AT BURLINGTON

VERMONT Kelvinator dealers operating under the G. S. Blodgett Co., Burlington, Vt., attended a two day sales meeting held in Burlington on April 12-13. Three manufacturers, Kelvinator Corp., Detroit, Esco Cabinet Co., West Chester, Pa., and the McCray Refrigerator Sales Co., Kendallville, Ind., participated in the meeting.

On the morning of April 12, a course relative to the construction and sales of McCray refrigerators for the butcher, grocer, florist, hospital, etc., was given. F. M. Ingersoll, Boston, Mass., eastern sales manager of the McCray Company, was in charge of this session. Following a luncheon at the Park Cafe, the afternoon meeting was devoted to a discussion of Ecso milk cooling cabinets. M. B. Cann, West Chester, vice president of the Ecso Cabinet Co., Elon G. Clarke, Hartford, Conn., Esco New England sales manager, and R. O. Washbon, traveling representative, were speakers at this session. Following a banquet in the evening the entire party attended boxing bouts at Fort Ethan Allen.

The Saturday session was taken up entirely by an inspection and discussion of the 1929 line of Kelvinator domestic and commercial equipment. H. A. Troutwine, Boston, New England sales manager, Lester Langley, Boston, traveling representative, and Wesley Downing, manager of the Boston sales office, represented the Kelvinator Corp. at this session.


# NORGE Distributors Surpass All Previous Records



**The proved Successful Rotary Compressor is the basis for Norge distributors sales success.**

DISTRIBUTORS sales for the first quarter of 1929 have surpassed by 248% any previous corresponding period. The Norge rotary compressor, with its fewer moving parts, positive, cooled air circulation, automatic compensation for wear, prevents excessive service costs cutting into profits.

Cabinet sizes range from four cubic feet to twenty cubic feet food storage capacity. Condensing units from 1/6 h.p. to 1 h.p. give Norge distributors unlimited sales possibilities.

Business firms or individuals who are willing to build, or who already have an active merchandising organization are invited to investigate.

There is still some unassigned territory.

*We endorse the National Food Preservation Program initiated by the Refrigeration Committee of the National Electric Light Association*

# Norge Corporation

***Silent, Economical Refrigeration***

DETROIT MICH.

# N. E. L. A. Refrigerator Merchandising Campaign Gains Momentum

## Over 300,000 of the N.E.L.A. Personalized Direct Mail Pieces Were Mailed Last Year; Ice Men Agree Plan is Fair

By G. B. Richardson

WITHIN the last year a third of a million of the N. E. L. A. mailing pieces have told the story of electric refrigeration to American housewives accustomed to using power company current in their homes. In Texas alone 160,596 letters, circulars and folders have been distributed—each individualized by personal addressing to the prospect.

The series of mailing pieces, together with suggestions for window displays, newspaper publicity, and "follow-ups," comprises the merchandising plan developed by the refrigeration committee of the National Electric Light Association and sponsored by the official membership of this group.

Although the campaign was slow to get under way, it has gained momentum steadily and is now in effect or soon to be put into effect in every section of the United States and in several foreign countries.

The idea was to educate the public to the desirability or electric refrigeration and to the necessity of including it in the regular equipment of the modern home. It has been left up to the various companies to adapt the plan to local conditions, and the employment of the campaign has been, of course, entirely optional. No particular makes of machine have been stressed, the whole note being to create a demand for the convenience, the efficiency and the health advantages of the electrical method of refrigeration.

Sales reports have been gratifying. The salutary effect of the co-ordinated merchandising system has been noticeable in the rising sales line on the chart of results. And one of the good features is that the educational aspect of the plan insures a lasting influence; it is hard to estimate the extent of the harvest that will be gathered through the years from the seed that has been sown.

Some of us may have heard the charge made that the sale of electric refrigerators by power companies has been conducted in a manner unfair to the ice industry, which is a large consumer of electric power and a good customer of the power companies. Sufficient refutation of this charge is contained in a report by the Power Companies of the Southwestern Ice Manufacturers' Association submitted at the recent Fort Worth convention.

> "After a careful study of a general outline of the year round sale and advertising activity, which is a carefully planned electric refrigerator sales campaign sponsored by the Electric Refrigeration Committee of the National Electric Light Association, it is concluded that there is no unfair competition existing in the plan," states this report.

Perhaps it would be well to review here a few of the high points in the merchandising plan. To begin with, a picture of the typical "Mrs. Davidson" to whom the sales appeal was to be directed, was conceived. This representative of American womanhood was assumed to live in an electrically served home, to have a husband making $2,000 or better a year, to be active in club work and a popular hostess at bridge luncheons. Naturally, "Mrs. Davidson" was regarded as anxious to outdo her sisters in the daintiness and appetizing quality of sandwiches, frozen desserts and cool drinks.

But "Mrs. Davidson" must be approached in the right way. She is accustomed to deference. That being the case, letters about electric refrigeration must bear her name. Indeed, they must be personalized to an even greater degree than that. They must talk in her diction, tell her the things she wants to know. The letters themselves must be attractive and in good taste.

"Mrs. Davidson" and other selected prospects found their interest awakened by a single-page letter. No. 2 in the direct-mail series is a mailing piece setting forth the facts about "Crisp, fresh salads." This is succeeded by a four-page epistle discussing "Health and Lifetime Joy." Next in order is a double card discussing "Always Ready." This is followed by a letter, "Baby's Milk." Then comes a broadside, "No Trouble"; a letter, "Easy Ownership"; a mailing card, "Just like the Big Hotel"; a folder, "Wonderful Frozen Desserts"; a brochure, "Sum Up the Evidence"; a double card, "Winter Refrigeration"; and a folder, "The family Christmas Present."

The ideal adaptation of the plan is to make of it a year-round affair, with one mailing piece to each month. This would be comparatively feeble were it not supplemented by other approaches. Once each month the local paper carries advertising setting forth the qualities common to all good electric refrigerators, signed by the company furnishing electric service to her home. One after another appear display discussions under the following heads: "So Very Simple;" "The Heart of the Home;" "Operates Automatically;" "Freedom;" "Health;" "Sparkling Cubes;" "Here's What Others Think;" "Marketing Simplified;" "Cellars and Basements;" "4 Hours for less than a Postage Stamp;" and "The Family Christmas Present."

G. B. Richardson

This double-header advertising has been multiplied in effectiveness by personal salesmanship, by demonstrations and window dressing, and by publicity stories in the local press.

As chairman of the committee of the N. E. L. A. which developed the plan of the campaign, I wish to express my appreciation of the co-operation that the various companies have shown in giving it a fair test. Confidence in the success of the direct-approach method accounts largely for the readiness with which it has been adopted. A by-product of the campaign probably has accrued in the form of increased good will toward the power companies back of it. We are just now getting into full stride and this season should see more electric refrigerators put into the kitchens of customers than ever before.

## GAS PROPERTIES TAKEN OVER BY CHICAGO GROUP WILL SELL ELECTROLUX

Fifteen gas properties in the South which have been purchased by the Central Public Service Group, Chicago, Ill., will merchandise Electrolux gas refrigerators as their major appliance. The properties purchased include those owned by the Georgia Power Co., Alabama Power Co., and the Mississippi Power Co. In addition, the Mobile Gas Co. has also been taken over by this group.

Cities served by these gas properties include Atlanta, Ga.; Athens, Ga.; Brunswick, Ga.; Macon, Ga.; Charleston, S. C.; Decatur, Ala.; Anniston, Ala.; Montgomery, Ala.; Selma, Ala.; Tuscaloosa, Ala; Hattiesburg, Miss.; Meridian, Miss.; Columbus, Miss., and Pensacola, Fla. New appliance stores were opened in all these cities on May 2. E. L. Callahan, Chicago, Ill., is in charge of the merchandising for this group.

## SEATTLE FRIGIDAIRE BRANCH TO ERECT ITS OWN BUILDING

Grant Fink, manager of the Frigidaire branch at Seattle, Wash, announces that it will erect its own building sometime before this fall. This new building will be arranged to take care of all departments of the Seattle branch. Frigidaire sales, according to Mr. Fink, show a 300 per cent increase in that district for the first three months of this year as compared to the first quarter of 1928.

### Copeland Export Agents Appoint Two Representatives

H. M. Robins & Co., Detroit, export representatives for Copeland Products, Inc., have appointed Werner Schoop, 1 Bahnhofplatz, Zurich, Switzerland, and P. A. Bloise, Latin-America, as sales representatives.

## TENANTS HELP SALESMAN PUT OVER DEAL FOR LARGE MODELS

The insistence of a salesman to be permitted to interview the tenants of an apartment where he wishes to sell electric refrigerators won him an order for 15 large General Electric units.

The salesman for the Electric Refrigerator Co. of New England was unable to convince the owner of a 15-suite apartment in Brookline that her tenants would agree to an increase of $5.00 per month rent on their existing leases.

However, he finally gained her permission to interview tenants in the apartment building. Appointments were made with the tenants and the salesman explained the advantages of electric refrigeration.

The interesting angle to this story is, that instead of agreeing to accept a $5.00 increase they agreed on a $7.50 increase to enjoy the advantages of a larger model.

### Two Norge Units Installed In $300,000 Canadian Home

Norge refrigeration was recently installed in a $300,000.00 Windsor, Ont., home. The equipment includes one twelve cubic foot and one seven cubic foot refrigerator.

The home is of stone, trimmed on the interior with imported Italian marble. Italian workmen were brought to Windsor to do the interior finishing.

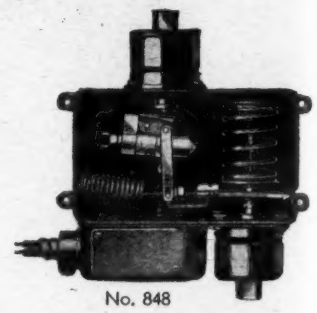
### Sparklet Production Started In Mexico

Factory equipment for Sparklets production in Mexico has been installed at Monterey, Mex., and will be operated by Cerveceria Cuauhtemoc, S. A. This concern is sole agents in Mexico for Sparklets.


THE NEW IMPROVED

MERCOID

DUAL CONTROL



No. 848
Dual Mercoid Control

THE Dual Mercoid is two instruments in one, furnishing accurate automatic control for the compressor as well as high-pressure cut-out for safety. Can be supplied with the low side control to operate by pressure (or vacuum), or if desired, the low side control can be of the temperature type—any temperature from minus 30° up.

In the new improved model the high side cut-out operates independently of the low side mechanism, thus any change in the cutting in and out points on the low side control does not affect the cutting-out point on the high side—or changes in the high will not affect the low. This design provides a wide differential on the high side.

This control operates with the well-known Mercoid Switch. There is no arc—no corrosion of contact—it operates on full-line current either 110 or 220 volts.

This control is especially suited for multiple hook-ups and ice-cream cabinets. Can be used on any refrigerant except ammonia.

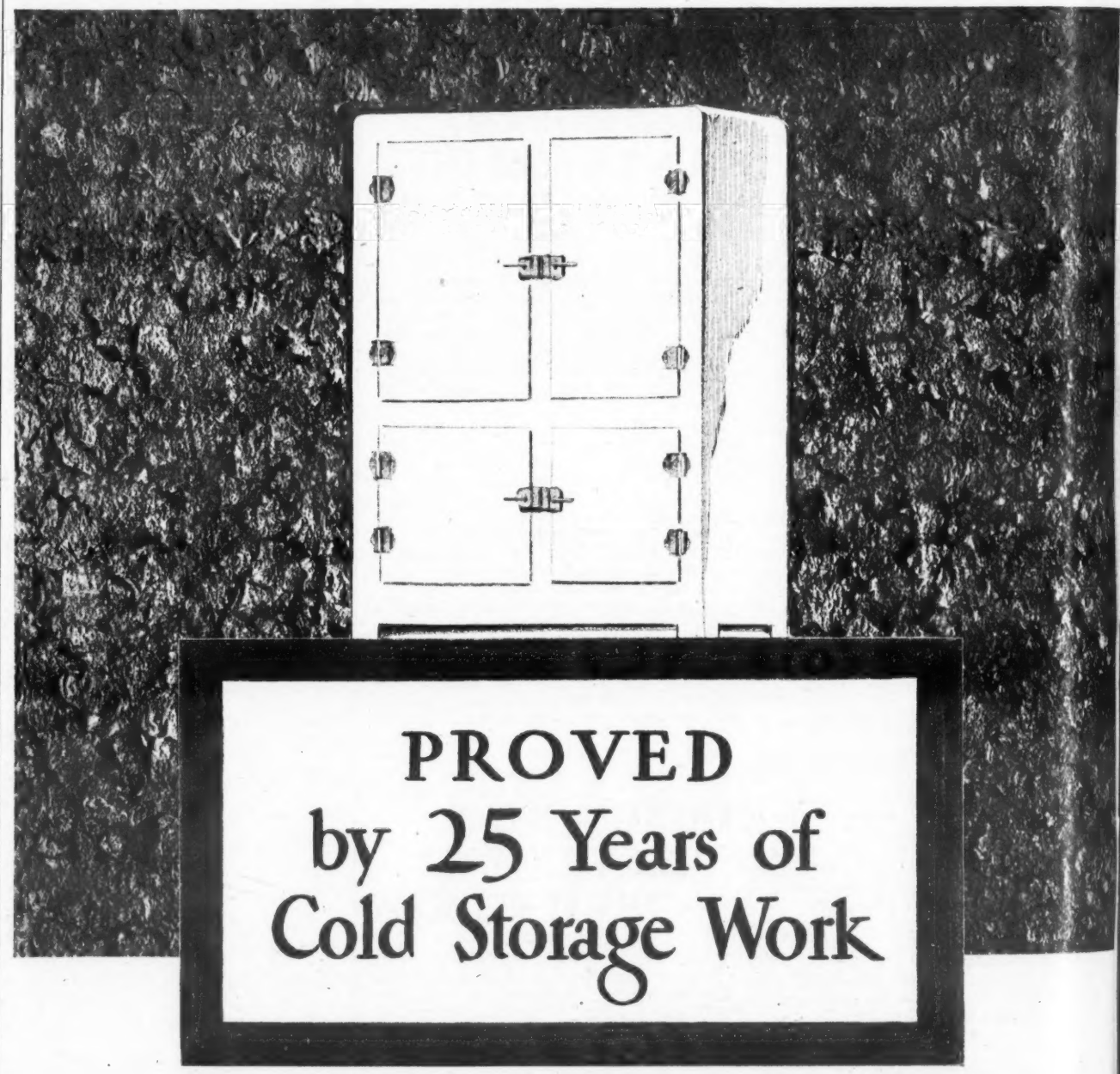
Write today for complete information on this control, also the Solenoid Valve for water-cooled units and other Mercoid Controls for refrigeration work.

AMERICAN RADIATOR COMPANY

ACCESSORIES DIVISION Department MER-3

40 West 40th Street, New York






ARMSTRONG'S Corkboard has been used for insulating cold storage rooms for 25 years. In that time it has proved beyond question that it is the most efficient, durable, and economical insulation known. Corkboard alone has survived where other materials have invariably failed, and is today the only insulation accepted as standard by the cold storage industry.

The insulation that has proved itself in commercial cold storage is the safest to use in household cold storage. Costly experiments once made need not be repeated. Armstrong's Corkboard offers complete assurance of insulating efficiency, permanence, and economy.

Furthermore, the public knows Armstrong's Corkboard and accepts it without question as superior insulation. It is a positive sales advantage to say, "This cabinet is insulated with Armstrong's Corkboard." Armstrong Cork & Insulation Company, 917 Concord Street, Lancaster, Pa.

TRADE MARK
REG. U. S. PAT. OFF.

Armstrong's Corkboard Insulation

# Uses Preliminary Interview To Get Information Necessary To Plan Specific Sales Argument

## Salesman Should Be First Sold on Prospect's Need For Electric Refrigeration

By Willis Parker

HAROLD J. REED, proprietor of the Reed Electric Co., Trinidad, Colo., does not attempt to sell an electric refrigerator on the first call on a prospect. As a matter of fact, the first call merely sells the salesman on whether or not the customer can use an electric refrigerator and why.

"Every home presents an individual problem," Mr. Reed explained. "No salesman can use the same tactics on two cases in succession. If he does he is wasting effort and expending more energy than he should. For that reason my first call is largely for the purpose of permitting the prospect to sell me on her need for modern refrigeration. She may deny, in the course of the interview that she can economically use the appliance, but while she is denying her need, she is telling me things about her family that convinces me one way or another of her need.

"When I go into a home, I want to see its condition. I want to know something of the family's eating capacity and what they like to eat. For that reason I always take a theremometer along as a means of opening the family's ice box. While the gesture is ostensibly for the purpose of determining the temperature of the box, it actually is a means of gaining five minutes in which to look around. Of course, when I place the thermometer in the ice box, I have an opportunity to see what is inside—what kinds of foods the family likes; what kinds of beverages they prefer; in other words, the family taste.

"After I have gathered as much data on the family as possible, I leave. Of course, in the conversation, I mention some of the advantages of electric refrigeration. They are general advantages, not by any means specific as applicable to this particular family. But on the second call the interview is much different.

"From the data collected on the first visit, I plan a special campaign on that family. I gather every sales argument that is pertinent to the data, and construct a sales talk that is air tight, as far as the individual customer is concerned. When the customer raises an objection, I am not stumped for a second, for I have an answer ready immediately and it is based upon that family's requirements.

"This system increases the number of sales than can be closed on the second call, whereas, it requires an average of five calls, in the experience of most dealers. Our average is three calls.

"Of course we don't sell all of those we contact the first and second times, but we do reduce the number of calls needed to close those we do close. Other systems would require five calls.

"If the customer does not buy on the third call it is because of some condition over which we or the customer have no control. Immediately, however, the customer's name and the history of the case goes on our active prospect file. About once a week, for the next year, that customer gets a personal letter from us regarding the appliance. Each letter brings out some specific point as pertaining to the customer's individual case and which was covered during our second interview. The series of letters keeps these points definitely in mind and strengthens the prospect's desire to possess such an appliance and increases her feeling of need for such an appliance in her home.

"As a rule the excuse for not buying, after our second interview, is the lack of funds for immediate use for this purpose. The customer usually explains that after such and such a date, she will be in a position to take advantage of the offer. We note that information on the prospect card, and when that date comes around we are on the job with personal contact salesmanship.

"We have an obsolescent file, too, which contains the names of prospects as many as six years old. We do not let that file sleep, but go through it from time to time, send letters to the prospects and otherwise keep them informed of the fact that we are still in business and that we remember their need of such form of refrigeration. We get them, not always, but nearly always. As an example of the value of an obsolescent file, consider the fact that out of 40 names in that file—some of them six years old—we have sold 26, at the latest count.

"No prospect's name is removed from our file—active or obsolescent—until he has left the community or has purchased an electric refrigerator from some dealer. We cannot afford to waste our sales effort, so we endeavor to salvage as much of it as possible. Since we have done the missionary work, we must be always in touch with the prospect, either by personal calls or by mail, to forestall her buying from some other dealer without first giving us another chance to talk to her.

"Most of our sales are made outside of the store. Most of our demonstrations are made in other people's homes. By that I mean that instead of bringing the prospect to our sales room for a demonstration, we prefer to take the prospect to the home of a user, for satisfied customers can sell more refrigerators for you than all of the store demonstrations. We haven't put machines in the home for demonstrations, so far, although we may have to do it sometime.

"In conclusion, I would say that the salesman must first be sold on the prospect and the prospect's actual need for a refrigerator and ability to use it; then he must develop an air tight sales talk for that particular case and present it; and finally he must never forget a prospect, regardless of how long ago he made his first call."

## HAVE YOU ADEQUATE MAN POWER?

Don't neglect the very important matter of having sufficient salesmen in your territory to promote the sale of the products you sell. Many dealers have a market possibility great enough to justify the employment of exclusive refrigerator salesmen. Practically all dealers can use salesmen to promote the sale of refrigerators in conjunction with other products sold by such dealers. In the day of specialization and intensified effort customers do not walk into sales rooms to buy without cultivation by outside salesmen. There's an active competition for the public dollar. It's a battle between your store and the automobile, piano, phonograph, furniture and clothing salesmen and many others. We must go after our share of Mr. Public's dollar.—Sales and Service Bulletin of the F. B. Connelly Co., Billings, Mont.

## ELECTRIC REFRIGERATOR BUSINESS REPORTED GOOD IN SAN BERNARDINO, CAL.

A. V. DuChane

Kelvinator, Frigidaire and General Electric refrigerator outlets in San Bernardino, Calif., report good sales for the first quarter of this year. Harry F. Izenour, agent for Kelvinator declares that "Sales are maintaining a steady increase consistent with the increase of warm weather and the outlook for the summer months is very promising."

Grove Fooshee, proprietor of the Fooshee Furniture Co., San Bernardino, agent for the General Electric refrigerator, reports that good results were obtained from his display of General Electric units at the National Orange Show. The exhibit and the treasure chest advertising have greatly increased the sales during the past two months. "It is just such advertising methods as these," Mr. Fooshee said, "that are needed just now to arouse the people to a full knowledge of the electric refrigerator."

William E. Arnold, Frigidaire agent, whose territory includes the towns of Redlands, Colton, Victorville, Barstow, Rialto, Fontana and other eastern county points, states, "The desert towns are a find for refrigerator salesmen, who find it much easier to place machines in the average one of these homes than in the larger cities, although practically all sales made in these places are on time, however, little difficulty is experienced by delinquent payments, for these people, as a whole, are good payers."

Karney's Meat Market in San Bernardino, recently installed a Stewart ice machine.

## LARGER SALESROOMS IN LOS ANGELES OPENED BY PARKER ICE MACHINE CO.

New sales rooms with more than 15,000 square feet of floor space and with a 60 foot front of plate glass windows have been opened at 2600 Sante Fe Ave., Los Angeles, by the Parker Ice Machine Co., San Bernardino, Calif.

A few weeks ago, the Parker Ice Machine Co. issued $150,000 worth of stock for the purpose of enlarging the plant at San Bernardino and for increasing the number and size of sales agencies through the county. Special attention is being given to dairy installations by this company. Recently, it completed the installation of electric refrigeration systems in 10 dairies in the San Bernardino Valley. In the Ontario Upland Creamery two 5-ton refrigerating plants were installed.

Other recent installations include the placing of refrigerating systems in six Piggly Wiggly stores in Imperial Valley, a drinking water cooling system in the Sante Fe shops at Topeka, Kans. A $10,000 refrigeration job in the Loma Linda Sanitarium, at Loma Linda, Calif., was recently completed by this concern.

### G. E. Refrigerator and Water Cooler Used at Florida Airport

The passenger terminal of the Pan-American airport at Miami, Fla., has been equipped with a General Electric refrigerator and water cooler. This building has every convenience for the comfort of air travellers, including a restaurant. The water cooler is placed in the lobby of the building.

It was from this airport that Charles Lindbergh made his flight with the first airmail for Christobal, Panama. The Miami Electric Refrigeration Co. secured the order for the General Electric equipment.


*Novoid Corkboard Insulation comes in 12" x 36" and 24" x 36" sheets, in 1", 1¼", 2", 3", and 4" thicknesses. It is shipped in sealed fibre containers, each holding 72 board feet of corkboard.*

*Ice and electric refrigerators are corkboard insulated to insure permanent thermal efficiency.*

**Corkboard Insulated**

In selling a cabinet it helps to be able to say, "This cabinet is insulated throughout with ..... inches of Novoid Corkboard." Pure corkboard insulation prevents refrigeration losses and insures the maintenance of low temperatures in the box. Make sure the cabinets you sell are insulated with pure corkboard. *Descriptive folder describing* Novoid *Corkboard Insulation sent on request. Write Cork Import Corporation, 345-349 West 40th Street, New York, N. Y.*

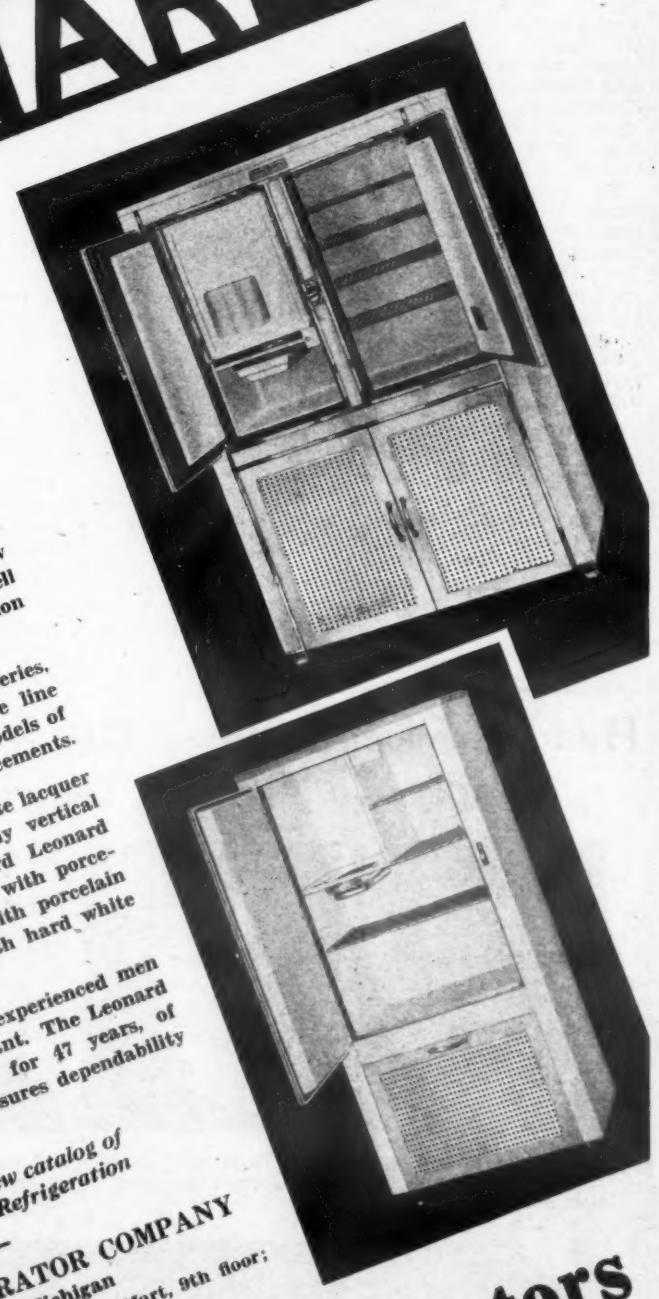
**Novoid Corkboard Insulation**

CORK IMPORT CORPORATION 345 W. 40TH ST. NEW YORK

*"Permanent Protection for All Refrigeration"*

Atlanta, Boston, Buffalo, Charlotte, Chicago, Hartford, Kansas City, Philadelphia, St. Louis, Troy

**MEET EVERY DEMAND WITH THIS NEW LEONARD LINE**



**Tailor-Made CABINETS for ELECTRIC REFRIGERATION**

This new Leonard Cabinet line, complete and varied in size and style, surprisingly low in price, will now enable you to cash in on *all* profit possibilities; to sell to *every* buying class in the mechanical refrigeration field.

Including cabinets for apartments, homes, groceries, restaurants—here is the largest, most complete line ever offered to electric refrigeration dealers. Models of beauty and super-quality, with newest advancements.

Cabinets of Parkerized (rust-proof) steel, white lacquer finish, with porcelain interiors, with roomy vertical cooling chambers, insulated with standard Leonard insulation, wrapped and sealed. Cabinets with porcelain inside and out; of oak and ash with porcelain lining; of steel and hardwood lined with hard white enamel.

These cabinets are made by skilled, experienced men in the world's largest refrigerator plant. The Leonard name, mark of surpassing quality for 47 years, of leadership for the past 16 years, assures dependability and service.

*Today, send for our new catalog of Cabinets for Electric Refrigeration*

LEONARD REFRIGERATOR COMPANY
Grand Rapids, Michigan

Permanent Exhibits: Chicago, Furniture Mart, 9th floor; Grand Rapids, Keeler Bldg., 1st floor; New York, 1 Park Ave.

**LEONARD Refrigerators**

"Like a Clean China Dish"

# Refrigeration Activities in Toledo

## QUOTA SMASHED BY G. E. DISTRIBUTOR IN TWO MONTHS DRIVE

### Ohio Men Turn in Orders Totaling Over $300,000

LAKE States General Electric Supply Co., Inc., Toledo, Ohio, General Electric refrigerator distributors, reports that 1,120 General Electric refrigerators were sold in a spring drive which opened on March 4 and closed on May 4. Over $300,000 worth of refrigeration equipment was sold during this period and the sales exceeded the quota set up by 12 per cent.

The Toledo territory at present is recognized as the hottest point for competition in the electric refrigeration industry and the Lakes States General Electric Supply Co., Inc., succeeded in going over its quota without offering special inducements to prospective purchasers. Regular terms and down payments were maintained.

Dealers in nineteen counties participated in the campaign which was planned to step up sales during the slow months and prepare the oroganization for an active summer. To create a spirit of rivalry among dealers and salesmen the campaign was conducted along a naval name of a battleship and a quota for the contest. Every salesman started with the rank of seaman and was promoted in rank according to the number of sales made during the contest. To attain the rank of admiral a salesman had to sell 16 General Electric refrigerators.

**Prizes Given to Salesmen**

Each salesman upon attaining the rank of admiral was given a prize of $25. A pennant was given to dealers who reported the highest percentage of quota sales for each week, and a cup was awarded on May 4 to the dealer reporting the largest per cent of quota. Prizes totaling $1,500 were awarded during this period.

LaSalle & Koch Co.'s Dept. Store conducted a refrigeration show for two weeks during the campaign and at special hours Toledo school children attended the show and received toy favors and literature. School teachers told the children the story of refrigeration at the show. Prizes were awarded to the children turning in the ten best essays on "Electrical Refrigeration."

To help dealers and salesmen the Toledo distributor issued a campaign book which outlined the details of the contest and gave instructions for using the numerous sales helps offered by the electric refrigeration department of the General Electric Co. These helps included literature, local advertising, direct mail pieces, etc. On March 1 dealers and salesmen attended a general meeting held in Toledo.

**"Scuttlebutt Sandals" Popular with "Gobs"**

"Scuttlebutt Scandals" was the title of the weekly sales dope sheet issued during the campaign and contained news of the movements of all ships in the naval contest and the activities of the seafaring salesmen. Each issue was profusely illustrated with humorous drawings of "gobish" nature and dealers reported that they got a real kick out of it.

The final issue of "Scuttlebutt Scandals," received just before going to press, states that Bob Milliken, of Tiffin, was the winner of the large loving cup and W. H. Schwan, of Luckey, received the fleet pennant for selling eight refrigerators in Luckey, a town with a population of 250 people. Winners of the first fifteen prizes were as follows: E. S. Hills, Toledo; A. J. Duffy, Toledo; W. H. Schwan, Luckey; D. J. Foy, Toledo; Leo Koepfer, Swanton; Robert J. Walters, Tiffin; Walter Oxley, Fremont; Harry Camp, Toledo; F. L. Freezner, Fostoria; A. C. Smith, St. Marys; Homer Z. White, Lima; C. R. Kerschner, Tiffin; Glenn Collender, Edgerton; E. E. Cuffel, Minster, and Ray Johnson, Delta, Ohio.

A very interesting report was submitted by E. S. Hills, who won the prize offered to the leading salesman. This report is as follows, "My calls were confined mostly to prospects on whom I had personally made at least one call, or who were on the mailing list. Approximately 200 calls were made during the campaign, of which 50 resulted in sales. Of the 200 calls, about 40 were made after 6:30 p. m. I found that about 90 per cent of the orders were signed by the husband and approximately 85 per cent of them were received in direct competition with other types of machines. About 95 per cent of the orders closed were with at least 10 per cent down payment. Eleven prospects purchased other makes of machines. I believe that at least 50 per cent of the remaining prospects will purchase refrigeration within 60 days."

## TOLEDO EDISON SALES REACH $180,703 MARK IN 36-DAY CAMPAIGN

### $110,000 Worth of Equipment Was Actually Installed

In a thirty-six day sales campaign, the new business department of the Toledo Edison Co., Toledo, Ohio, sold $183,703.00 worth of Frigidaire electric refrigeration equipment. This campaign opened on March 7 and was brought to a close on April 12. During this time 618 refrigerators, 718 compressors, and 889 coils were sold. Two hundred coils, compressors and cabinets were sold to the Hillcrest Arms apartment, which is now under process of construction. Officials of the new business department believe that this is the largest apartment house sale ever closed in Toledo.

The last day of the drive was designated as C. L. Proctor day in honor of C. L. Proctor, vice president and general manager of the Toledo Edison Co. On this day orders totaling $40,000 were turned in. Of the total sales for the campaign, more than $110,000 worth of equipment was actually installed during the 36 days.

Special inducements were offered to prospective customers to purchase during the drive. These included an allowance for the customer's ice box and a Sparklet syphon, which was given as a premium to each purchaser.

A telephone survey of Toledo and vicinity was made by the new business department and a large mailing list was concentrated on. Newspaper advertising also tied in with the campaign.

E. H. Beam is in charge of the refrigeration department which is comprised of two sales supervisors, five commercial salesmen and fifteen domestic salesmen Each salesman has protected territory and there are approximately 93,000 meters in the combined territories of all salesmen.

In order to create a spirit of rivalry among the salesmen, two teams were made up in the refrigeration department and prizes were awarded to the winners. The high salesman in the commercial division sold $21,000 worth of equipment and the lowest salesman reported over $10,000 in sales. In the domestic division the high salesman sold $10,500 worth of equipment and the lowest salesman had sales totaling over $5,000.

## SPARKLETS SYPHONS FEATURED IN DRIVE

SPARKLET syphons played an important part in the thirty-six day Frigidaire campaign conducted by the Toledo Edison Co., Toledo, Ohio, from March 7 to April 12. Every purchaser of an electric refrigerator was given a Sparklet syphon as a special inducement to buy during the spring campaign.

Throughout the campaign numerous demonstrations were conducted in Toledo by home economists and syphons were featured. At these demonstrations the women attending were made acquainted with the Sparklet aeration process of making ice cream and other frozen desserts. Large turnouts were reported at all the demonstrations. Advertising of the Toledo Edison Co. during the campaign focused considerable attention on the syphon.

## Heads of Lake States General Electric Supply Co., Toledo Distributors

Above—left to right: Earle E. Merritt, manager of the refrigeration division; C. A. Chamberlain, commercial manager; H. A. Bonsteel, sales promotion manager.

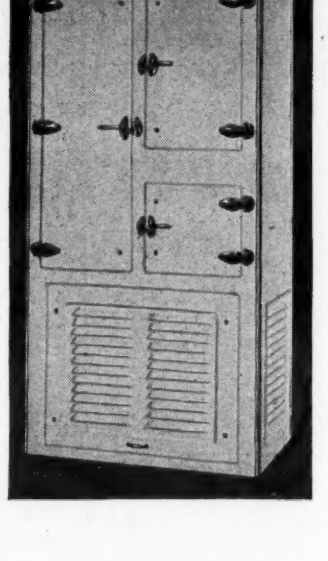
Above—left to right: J. W. Kron, retail sales manager; C. J. Gillespie, wholesale sales manager; K. D. Halleck, wholesale department, in charge of sub dealers.


## A National Acceptance

The gratifying reception that has been accorded the NEW BOHN SANITOR series is undoubtedly due to its low price — but by no means to price alone, for in every detail of its construction BOHN standards have been adhered to rigidly. Here is a super-quality, all-porcelain refrigerator that is as beautiful in appearance as it is efficient in service. Quantity production brings its price within the reach of the majority of families in your community.

These models together with those of the other famous BOHN Lines combine to make a group of refrigerators that answer every requirement in style, size and price.

Our catalog gives complete information and it is yours for the asking.



*Nothing finer can be said of a refrigerator than "It was built by BOHN."*

**BOHN REFRIGERATOR COMPANY**
SAINT PAUL, MINNESOTA

NEW YORK CHICAGO BOSTON

## Valuable Information Is Worth Preserving

MANY of our readers are keeping each and every issue of Electric Refrigeration News in a permanent file, so that they may have this valuable information for ready reference at all times.

For your convenience we offer two very attractive binders designed especially for Electric Refrigeration News. One style has a spring in the binding edge and it is only necessary to open the binder, pressing the backs together to insert new issues or remove those already in place. This binder looks neat whether it contains one issue or twenty-six.

The illustration will give you an idea of the style known as a multiple binder, showing the visibility of type. Also cross section of binding edge shows how the metal retaining strip is put through each issue, making it less likely that a copy may be removed.

**Send $3.75** *for a binder (spring back or multiple style) for your file copies of the* NEWS

Both binders have stiff board covers and are attractively bound in good quality of black imitation leather. The "spring back binder" has extra heavy covers to prevent breaking when the spring is opened. The name "Electric Refrigeration News" stamped in gold on the front cover of each type. A binder of either type will be shipped postpaid on receipt of $3.75. Please specify whether you want "spring back" or "multiple" style.

**Electric Refrigeration News**
550 Maccabees Building DETROIT, MICH.

# New Equipment Announced by Manufacturers

## DEVON OFFERS NEW REFRIGERATOR USING AIR AS REFRIGERANT

By C. G. Fairman.

THE new Devon air refrigerator has undergone extended factory tests at the plant of the Devon Manufacturing Co., Springfield, Mass., and it is now ready for quantity production, according to C. O. Ward, general manager of the Devon Manufacturing Co.

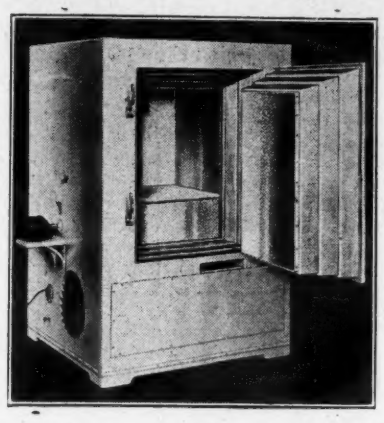
Mechanical details of the Devon unit are described by I. Lundgaard, inventor and engineer. The refrigerating unit consists of a single cylinder air compressor which is driven at a slow speed under pressure by a quarter horsepower motor. All moving parts are housed inside the compressor body, where they are automatically lubricated, and are surrounded by air which actuates the cooling process at less than 100 pounds pressure. This compressor operates in an air-tight case.

By a simple breathing action the air is guided inside this cylinder which uses the interchanger method. Surmounting the cast-iron piston and operating in synchronization with it is a second piston of bakelite, which fits loosely in a bakelite cylinder. The purpose of this is to agitate, or momentarily expand by a series of impulses, the compressed air and cause it to circulate through the interchanger which absorbs heat from the air.

This interchanger consists of a number of strips of brass ribbon, each 40 ft. long, .002 in. thick and one-eighth in. wide, wound on a bakelite core and spaced by cotton threads .0005 in. thick. The core is about six inches in diameter and three inches long, and fits like a collar about the air agitator. This core is tightly sealed and the interchanger is enclosed by a series of tinned copper fins, which radiate the heat that is absorbed from the air inside the compressor. This interchanger absorbs heat so rapidly, Mr. Lundgaard explained, that it was only necessary to devise a method of circulating the air under pressure through the interchanger, and this is accomplished by means of the bakelite agitator.

To avoid defrosting, the air taken into the compressor is passed through a small container of phosphorus pentoxide which removes all moisture, and to prevent moisture from being introduced with lubricating oil a small quantity of the same compound is fixed inside the compressor.

Two models are now offered in the Devon line, No. 11 has food storage space of 11.5 sq. ft. while No. 14 has food storage space of 14.4 sq. ft. Both cabinets have 3 in. cork insulation and will make 196 ice cubes every four hours. The freezing chamber for ice cubes is separate from the food compartment in the cabinet. The temperature in the ice chamber may be varied independently of the food compartment. Circulation of cold air through the food compartment is obtained through the use of a small moving drum-type fan, and the temperature inside the cabinet is regulated by a mercury thermostat.



Special Devon Refrigerator. Maintaining 40 Below Temperature in Rubber Manufacturing Plant.

The cabinet is manufactured by the F. A. Atherton Co., Worcester, Mass., with door gaskets of a special design furnished by the P. L. Rider Co., Worcester, Mass.

The Devon Manufacturing Co. has just delivered to a large rubber company a refrigerator guaranteed to maintain a temperature of 40 degrees below zero. This special machine contains the same refrigerating unit used in the domestic unit. The door and walls of the cabinet are 11⅝ in. thick, of which 10 in. is solid corkboard. This special refrigerator is to be used for testing automotive equipment which will be sent into the polar regions.

## ANNOUNCES STARTING SWITCH FOR ELECTRIC REFRIGERATOR SERVICE

Diamond Electrical Manufacturing Co., Los Angeles, Calif., announces a line of KXR magnetic switches containing a combined manual and automatic across the line starting switch designed for refrigeration service.

The KXR line has panel and arc shields, thermal overload relay, low voltage release, small in size, steel box finished in baked enamel, Bakelite starting lever set integral with panel and remote control where desired.

## SET OF SMALL WRENCHES HANDY FOR SERVICE MEN

The J. H. Williams & Co., Buffalo, N. Y., has just placed on the market a set of special wrenches designed to facilitate the making of small adjustments in electrical work. This kit which is known as the "Midget Electric Set" contains seven wrenches with openings running with 7/32 in. to ½ in. Each wrench has two openings of the same size, which are set at angles of 15 and 75 degrees. The seven wrenches are packed in a black leatherette carrying case, which when closed, measures 5x4x¾ inches.

## SERVEL, INC., ANNOUNCES ELECTROLUX PORCELAIN UNITS & WATER COOLERS

Servel, Inc., Evansville, Ind., reports a 40 per cent increase in April Electrolux sales over any previous month. Electrolux models El-4, El-5-B, El-7, El-10-A with porcelain cabinets by the Seeger Refrigerator Co., St. Paul, Minn., will be available for shipment this month.

Production of Electrolux water coolers has been started at Evansville and units will be shipped this month. The coolers, which are of the pressure type, have two spigots, one for chilled water and one for tap water. The El-10-A, a new 10 cu. ft. model, is now being shipped to Electrolux dealers and distributors.

## AMERICAN ICE MACHINE TO MAKE ADDITIONS TO LINE OF COMPRESSORS

The American Ice Machine Co., Glendale, Calif., announces that a line of commercial compressors ranging in size from 90 lbs. ice melting capacity to 2,200 lbs. ice melting capacity per 24 hours will be placed on the market in a short time. Fourteen models now comprise the American line of compressor equipment. At present this company is specializing in equipment for central multiple installations of 25 to 200 cooling units per compressor.

Recently, a new cooling unit was announced. This model C-10 unit has

New American Cooling Unit.

three trays and is 8¾ in. wide and 10¾ in. high not including the hangers. It is constructed of heavy cast semi-steel. The liquid chamber is of one-piece design. This unit provides three temperatures in the freezing unit. The two lower trays can be removed and pyrex dishes or other receptacles for frozen desserts may be substituted.

## ALLEN-BRADLEY OFFERS SMALL A. C. CONTACTORS

The Allen-Bradley Company, 286 Greenfield Ave., Milwaukee, Wisconsin, announces a new line of small alternating current contactors for electric ranges, water heaters, steam vulcanizers, fire alarms, oil burners, refrigerators, traffic signal systems, and other applications requiring an automatic control switch of small capacity.

The new Bulletin 701 alternating current contactor is provided with silver double break contacts, and the entire assembly is mounted on a molded bakelite base. All switch parts are cadmium plated to prevent corrosion. These switches can be provided for operation on 6, 12, 24, 110, or 220 volts, and for any frequency from 25 to 60 cycles. Current ratings range from 15 to 30 amperes.

## NEW RUBBER MOUNTED MOTOR ANNOUNCED BY WAGNER ELECTRIC CORP.

Wagner Electric Corp., St. Louis, Mo., announces a new motor, the RAR, developed especially for applications requiring ultra-quiet performance.

The motor proper is completely insulated from the supporting cradle-shaped base, by means of rubber bushings. Notwithstanding the use of rubber to absorb the minimum amount of vibration produced in the motor, the entire outfit is practically rigid, and the shaft alignment is in no way endangered. This new type of mounting has been effected without a change in overall length and width dimensions.

The motor is of the brush-lifting type, the brushes being lifted off the commutator as soon as the rotor attains operating speed. This feature produces quietness in operation and prolongs the life of commutator and brushes.

The motor proper has also undergone alterations to improve its quietness and electrical performance. In addition to equipping governor weights with rubber bumpers, as was done previously, the rocker arm has been redesigned to practically eliminate brush noise during starting and stopping.

## Baker Announces New Commercial Unit in ½, ¾, and 1 hp. Sizes

A new small commercial refrigerating unit has been announced by the Baker Ice Machine Co., Omaha, Nebr. The unit is made in ½, ¾, and 1 h.p. models, using either ammonia or methyl chloride as a refrigerant.

Main bearings, connecting rod bearings, piston pins and stuffing box packing are lubricated under oil pressure. Honed cylinders, ground pistons, full metallic packing and a roller bearing are features. Quick acting valves with full sized openings and quadruple effect counter current condenser are used.

BUSH CONDENSERS

*Made in Any Size or Capacity*

SEAMLESS COPPER TUBES
INDIVIDUAL FINS

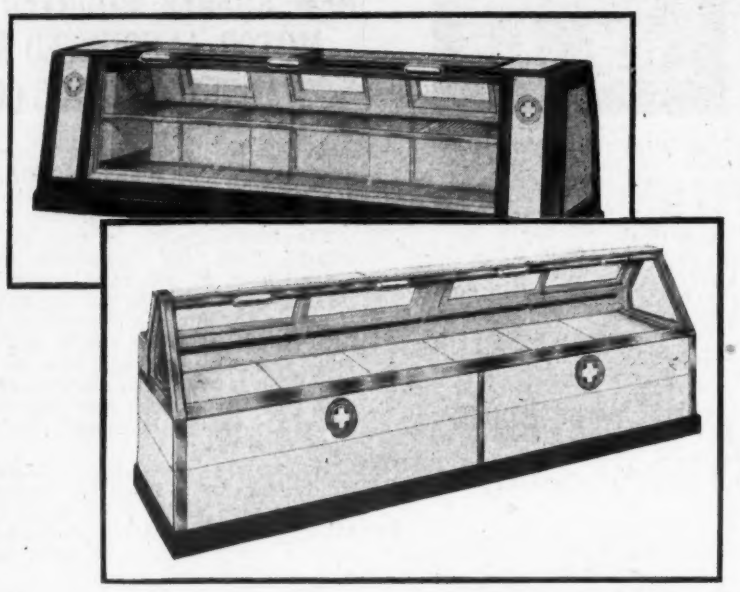
*Maximum Efficiency*

BUSH MFG. CO.
HARTFORD, CONN.

W. H. MARK HANNA
6-247 General Motors Bldg. DETROIT, MICHIGAN

*Engineered for*

# Mechanical Refrigeration



For over a quarter-century, merchants have depended on Hussmann to set the standard for quality and performance in refrigerated storage and display equipment. Hussmann has always made its display cases, coolers and grocery boxes worthy of this confidence.

Now . . . along with the perfection of mechanical refrigeration by other companies . . . Hussmann has engineered and perfected a complete line of equipment that utilizes fully the pecularities and advantages of all modern cooling methods.

When discussion of refrigerated display and storage equipment arises, you can recommend Hussmann equipment without reservations. If you desire complete information about the Hussmann line, we will be glad to send it to you. *Write us.*

*Factories at Saint Louis (2) Yardley, Pa.*

HARRY L. HUSSMANN
REFRIGERATOR DIVISION OF
HUSSMANN-LIG-O-NIER CO.
907-913 North Broadway, Saint Louis

*Sales Offices in all Principal Cities*

Wayne
Electric Refrigerator



Every Day—

Thousands of men and women are going into stores like your own to see what's new in Electric Refrigerators! And many of them are asking about the new Wayne . . . with its Automatic Cold Control!

If you are interested in this Wayne Feature . . and the profitable Wayne Franchise . . Write Us.

WAYNE HOME EQUIPMENT CO.
Main Office and Factory, Fort Wayne, Ind.

# Starr Analyzes Washington Safety Code

*(Concluded from page 14)*

Washington. No provision against using lethal gases.

Deaths have occurred by machines using such.

New York City provides against this. Sec. 216 c, e, and f.

(11.) Taking up seriatim the clauses in the Washington Code as presented, there is no particular objection to Sec. 211-6 a, b, c, d, e, g, h, 1 and 2, under head of Refrigerant Connections p. 2. I do not discuss piping and conduits because we are opposed to allowing the so-called multiple system, except as provided in N. Y. C. Sec. 219-C, and would not allow direct expansion above the first floor. No conduit will protect the pipe from rupture in case of fire and the results of a falling wall or a falling floor and resultant escape of gases and consequent hindrance to firemen who are trying to defend against further damage. For forty years the use of direct expansion above the first floor has not been favored or practiced, especially as a safe method can and has been used in brine distribution. No hotel or other large user of refrigeration has allowed direct expansion and all use brine.

The clause B, C, D, E and F p. 2 permits "standard ammonia" and brine pipe construction, but leaves it open to question whether a conduit is required for ammonia iron tubing or only for brass tubing. Direct expansion even with ammonia piping above the first floor is objected to whether or not enclosed in a conduit as the conduit is of no protection to firemen in case of a fire and these regulations should have in view the same object that the N. Y. C. firemen had in view when they caused the following clause to be inserted in the New York Ordinance. Sec. 219-b.

> The direct method of refrigeration shall not be used in any building, whether or not a permit is required for installation therein, outside of the refrigerating machinery room except in buildings used exclusively for ice making or for refrigerating purposes or both; when not carried above the first floor in business buildings; in the business sections of business buildings provided the entire system is confined to one floor in the space occupied by a single tenant; in the business section of a residence building when not above the first floor; in a residence building occupied by not more than two families; or in any building provided a non-irritant and non-flamable refrigerant is used.

(12.) Of course in a building entirely devoted to refrigeration, the prohibition of direct expansion is impractical and unnecessary, but it should be prohibited in a dwelling or apartment house of considerable occupancy day and night.

The framers of the A. S. R. E. and N. Y. C. Code established twenty pounds as the safe limit in any one system as it was considered the largest amount that would not work injury in case of escape. The underwriters prohibit a multiple system containing more than 100 lbs. or five times more than what is considered a safe limit. The A. S. R. E. and The N. Y. C. consider this figure as eighty pounds too much and have special safeguards where the amount of refrigerant is over twenty pounds, in the way of licensed engineers, safety valves, helmets, etc., and at that prohibit above the first floor except in certain well defined cases, that recognizes the differences between occupational risks and occupancy risks.

(13.) The Washington Code does not provide for any regulations on machines using over one hundred pounds of refrigerant except those that happen to be in an ice plant, hotel or restaurant. The Code seems to be drawn especially to cover the installation of small machines. If this was the intent, why single out machines in ice plants, restaurants or hotels for regulation? There are many large machines that are operating neither in a hotel, restaurant or ice plant. The largest amount of refrigeration in the world is not in a restaurant, hotel or ice plant, but in a building that has nothing to do with either. If it was the intent to leave out large machines, why should not Class G, H and possibly F, be left out and in any event, are not Classes E and included in A, B, C, D, as far as the refrigerating machinery is concerned? And are not Classifications E, F, G and H redundant?

(14.) If all machines are to be included, a class from 100 to 1000 pounds might be made and another of over 1000 pounds; and definite and proper regulations be made to cover each class.

(15.) Under the head of "Approved" p. 3, it is impractical to file a model of a large plant and underwriters' approval of a large plant cannot be had until the plant it finished. It is seldom practical and often inadvisable to construct a large plant strictly in accordance with the original plans.

It is suggested that the Inspector of Plumbing may know little about good construction in refrigerating work and the inspection and approval of one who knows little or nothing about it is relied on in the Washington Code to the possible disadvantage of the more experienced builder.

(16.) To allow a person ignorant of refrigerating work to decide on when a plant should be put out of operation, might entail great financial loss unnecessarily.

(17.) Definite requirements are necessary to be set out which most any one can pass on instead of leaving the whole matter to the approval or disapproval of one who has had no training and whose judgment is necessarily incompetent.

(18.) Changes, additions and repairs are constantly necessary or advisable in any large plant without the interruption of the plant's function, and some method other than that provided should be devised to define and permit the work to be done.

(19.) The method of permits, inspection and approval of repairs, extensions or additions, proposed in the Washington Code are cumbrous, not workable, not exactly defined and may possibly be the cause of undue expense to the owner, and great loss.

(20.) Complete revision of the subject is absolutely necessary as much of the proposed regulation is clearly unconstitutional applied to large plants.

(21.) With a few minor exceptions there are no provisions in the Washington Code for the safety to life, limb and property; except the doubtful judgment of one who may know nothing of the subject.

(22.) It would be far better to leave the matter of safety to the experienced ice manufacturer to whose interest it is to take proper measures for the safety of his plant, and who is in a position to do so; then to hamper him with such indefinite regulations. While he objects to being singled out from a number of other users of refrigerating machines, he is nevertheless inclined most heartily to cooperate with the Fire Department and to put every possible safeguard around the operation of refrigerating machinery and looks with favor on the A. S. R. E. Code and on the N. Y. C. ordinances; and will cheerfully comply with their definite regulations and pay any fees that may be reasonably charged for their enforcement. But they call the attention of the Commissioner to the fact that they are not the only class of manufacturers operating large refrigerating machinery and think that proper regulations should apply to all in the general public interest. They feel that the provisions of this proposed set of regulations are not definite enough and not in accordance with a desired uniformity with other regulations under which they must work. In the case of the Am. Ice Co. operations in the large cities of Boston, New York, Philadelphia, Baltimore, and Washington, are involved as well as in numerous smaller cities.

Their Washington plants are already equipped with safety device and methods of construction approved by the N. Y. C. and A. S. R. E. Codes.

Respectfully submitted,
JOHN E. STARR,
Consulting Engineer, A. Ice Co. et al.

## DIRECT MAIL CAMPAIGN OFFERED BY ELECTROLUX

Servel Sales, Inc., Evansville, Ind., has made available to its Electrolux dealers and distributors an extensive direct-by-mail campaign, which is founded on actual selling experiences of Electrolux gas refrigerator salesmen. The literature consists of five pieces in two or more colors and is designed for carefully prepared lists of prospects. The campaign is being presented to wholesalers and retailers in a handsome portfolio which carries samples of each piece and suggestions regarding their use.

Of the five pieces, only three carry return cards. The first is informative in nature, being designed to provoke interest in the general subject of automatic gas refrigeration. It is a folder carrying the title "Like the Magic in Fairy Tales" and describes the conveniences and advantages of owning a gas operated refrigerator. Its appeal is primarily to women. Number two is a folder called "Silence." It features the simplicity of the Electrolux and is the type that a woman will show her husband. Numbers three and four contain additional selling points, such as low cost, points of construction and economy of operation. Number five pictures the beauty and long life of Electrolux, and in a pocket is a small booklet picturing the eight models available.

### L. R. Gault, Jr., Transferred To Cincinnati Frigidaire Branch

L. R. Gault, Jr., has been appointed sales manager of the commercial apartment house and water cooling division of the Cincinnati branch of the Frigidaire Sales Corp. He was formerly with the branch commercial organization at Dayton, Ohio.

Mr. Gault joined the Frigidaire organization at Detroit, and prior to that time was with the sales division of the National Cash Register Co.

## FREDERICK HASSE JOINS SPARKLETS

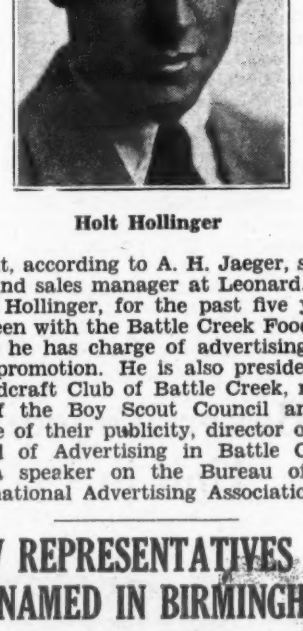
The appointment of Frederick Haase as divisional sales manager has been announced by A. Edwin Fein, president of Sparklets, Inc., with headquarters at 19 West 44 Street, New York City. Until recently Mr. Haase was associated with the Frank E. Wolcott Mfg. Co., Hartford, in the capacity of vice-president in charge of sales, prior to which he had been conducting his own business as sales and merchandising counsellor.

Frederick Hasse

Mr. Haase will supervise all sales and merchandising activities on behalf of "The Sparklet Method of Aeration"—for the making of pure ice cream in automatic refrigerators, sparkling beverages, ice cream sodas, etc—in the states of New York, New Jersey, Pennsylvania. Delaware, Maryland, District of Columbia, and West Virginia.

## HOLT HOLLINGER TAKES LINES' PLACE AT LEONARD

Holt Hollinger has been appointed manager of advertising and sales promotion by Leonard Refrigerator Co., Grand Rapids, succeeding Earl Lines who was recently named director of advertising and sales promotion of Kelvinator Corp., Detroit, according to A. H. Jaeger, secretary and sales manager at Leonard.



Holt Hollinger

Mr. Hollinger, for the past five years, has been with the Battle Creek Food Co., where he has charge of advertising and sales promotion. He is also president of the Adcraft Club of Battle Creek, member of the Boy Scout Council and in charge of their publicity, director of the School of Advertising in Battle Creek, and a speaker on the Bureau of the International Advertising Association.

## NEW REPRESENTATIVES NAMED IN BIRMINGHAM

Clark & Jones Piano Co., Birmingham, Ala., have been appointed distributors by Kelvinator Sales Corp., for the northern part of the state of Alabama. The Clark & Jones Co., have been among the leading retail houses in the state for thirty years, handling pianos, phonographs and radios.

The Birmingham Gas Co., a subsidiary of the Commonwealth Co., is now handling the Electrolux and the Alabama Electric Supply Co., is handling the Servel.

The Starr Piano Co., has been appointed distributor of the Zerozone.

The Domestic Electric Co., Frigidaire agents, are planning to move to larger quarters soon. This concern reports sales very good in the past few months with prospects fine for the summer.

### Seattle Copeland Dealer Takes Larger Quarters

Dave Logg, Copeland dealer in Seattle, Wash., moved on May 15 from 4136 University Way to larger quarters at 4330 Brooklyn Ave., in Seattle.

### Takes G. E. Dealership in Ware, Mass.

Leahan Motor Co., has been appointed a General Electric refrigerator dealer in Ware, Mass.

# Kelvinator Salesmen and Dealers Attend Fourth Annual Convention of Kelvinator-Syracuse, Inc.

**Kelvinator dealers and salesmen at the Kelvinator-Syracuse convention, April 24th. The picture was made near the handsome new building now occupied by Kelvinator-Syracuse. The convention was arranged and presided over by Frank Fenn and J. F. S. Meachem who are standing on the left of H. W. Burritt, vice-president in charge of sales of the Kelvinator Corporation.**

# GIVES MERCHANDISING POLICIES BACK OF 33 CARLOAD G. E. ORDER

## Pennsylvania Power & Light Has Set Sales Program

THE Pennsylvania Power & Light Co., Allentown, Pa., recently placed the largest single order for General Electric refrigerators ever received from a dealer by the electric refrigeration department of the General Electric Co. This order was for 33 carloads or 1,200 refrigerators for the month of April. This concern operates as a dealer under Page-Morris, Inc., distributors in Albany, N. Y.

R. W. Hoy, merchandise manager of the Pennsylvania Power & Light Co., states that his company expects to sell way beyond its quota for the year. As part of the merchandising activity in selling General Electric refrigerators, the Page Morris, Inc., has cooperated closely with the Pennsylvania utility. The Page-Morris G. E. Refrigeration Circus travelled through the Pennsylvania territory attending sales meetings. This circus followed the procedure of the old time one ring circus. Over 800 hundred salesmen attended the performances and sales meetings.

This successful refrigeration merchandising activity has attracted considerable attention and at the request of the NEWS, R. M. Phelps, general merchandise manager of the Pennsylvania Power & Light Co., outlines the high lights of the refrigeration sales program carried out by his company.

Mr. Phelps writes:

"This organization is committed to the belief that there is nothing miraculous in selling and second that neither miracles nor trickery enter into successful refrigeration sales. The first policy, therefore, is that results are obtained from hard, conscientious work, built upon a logical and workable program, all this in turn being ably supported by a fool proof prospect file which in turn is the basis of our advertising and general publicity.

**Sales Supervisor Should Have Ability and Enthusiasm**

"We believe that refrigeration sales should be handled by a specialty organization, this organization to be in charge of a supervisor who has both sales ability and enthusiasm and thorough technical knowledge of the product. We are fortunate in having such a man.

"Enthusiasm, on the part of individual salesmen, is maintained in the good old tried and true fashion, namely through daily sales meetings, through individual quotas, figured weekly and not monthly. It might be interesting to note that if there seems to be any weakening of our sales force, these quotas are put on a daily basis and in extreme cases, unless these quotas are met, the salesman is immediately dismissed.

"With respect to publicity and advertising support to this sales force, we subscribe one hundred per cent to the sharpshooting direct by mail system. Of course, we advertise consistently in the local press, but our major effort and expenditure is devoted to the use of constant and expensive direct by mail follow-up campaigns, with each and every prospect carefully selected from the file, as being a live prospect. Here, again, army regulations apply to the salesman, whom we hold absolutely responsible for a visit to each and every prospect who receives the direct by mail material within 48 hours of the receipt of such material.

**Salesman Must Conform To Regulations**

"We could go on and on developing the finer points of our program, but in the interests of brevity and of saving time, we can summarize it as simply a hard boiled, industrious application of our trained salesman's man hours to a job, the requirements of which are clearly defined and any failure to make the requirements, has only one answer. We believe that selling is a normal activity. We believe that a salesman, whether on salary or commissions, should conform strictly to the requirements of good business and meet those requirements as faithfully as any regular salaried employee meets the requirements of his, or her particular job. Failure has no place in our organization and although one might expect considerable labor turnover, this is not the case to the extreme, since the cards are all laid on the table and any man accepting employment, accepts unreservedly, the conditions of that employment. You may conclude, that on this organization, we follow simply the hard, cold dictates and requirements of good, sound, successful commercial procedure."

## W. A. Kuenzli Joins Servel

Walter A. Kuenzli, formerly of the Engineering Department of Kelvinator Corporation, Detroit, is now connected with the same department of Servel Sales, Inc., Evansville, Ind.

## Anita Loos Buys a G. E.

Anita Loos, young author of "Gentlemen Prefer Blondes," has her Palm Beach residence equipped with a General Electric Refrigerator. The sale was made by Vey, Faber and Roll, Inc., dealers in West Palm Beach, Fla.

# How Commonwealth Edison Handles Installation and Service

COMMONWEALTH Edison Co., Chicago, Ill., distributors of Servel, Frigidaire and Kelvinator electric refrigeration, maintains a large force for the testing, servicing and installing of refrigeration units. Servel and Kelvinator units only are installed and serviced by this department.

As the machines are received from the manufacturers, the cooling units and compressors are installed in the cabinets at the shop. Each unit is carefully tested by charging it with the refrigerant and operating it for approximately 24 hours for a thorough test. The machines are then stored in the warehouse until sold and when delivered to the customer each unit is ready to be connected to an outlet for immediate use.

Multiple installations in apartment buildings where one compressor serves two or more boxes are handled by plumbing and heating contractors working under the supervision of the Commonwealth Edison Co. The cooling units and compressors are tested before being sent to the job, and after the system is installed, it is thoroughly tested once more. Copper tubing is encased in flexible tubing or conduit wherever necessary.

Service and installation men are trained in the shop and after several months' experience are transferred to the field. A course of training is also conducted in this company's central station institute.

Service men carry three or four common types of compressors, motors, floats, etc., on their trucks, so that instead of making extensive repairs at the customers' premises, they replace the defective units and bring them to the shop for overhauling. The refrigerant is carried in drums of about 3 lbs. capacity.

Requests for service are received at a central service bureau by a corps of work dispatchers on duty there. All service men call the dispatchers and the requests for service are relayed to them over the telephone. Complete records are maintained for each refrigerator by means of a card system. Here the description of the machine, with the date of installation, the owner's name, address, telephone number and a complete history of service calls are recorded for reference and statistical purposes.

## R. B. Alling Co. Increases Display Room Space in Detroit

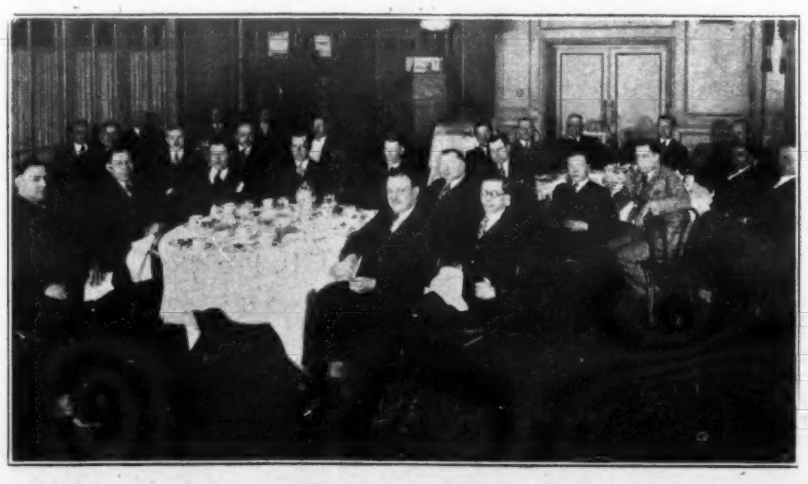
The R. B. Alling Co., Copeland distributors for Michigan, has doubled its showroom space in Convention Hall building, Detroit, permitting the display of a complete line of domestic refrigerators. Later a complete line of commercial equipment will be placed on view.

This distributorship was originally held by the Strelinger Copeland Co. and more recently by the Alling-Strelinger Co. Mr. Alling took over the entire organization in the early Spring. Newspaper and outdoor poster advertising is being used liberally.

## P. R. Preitsch Now General Manager of Gordon Prentice, Inc., Seattle

Paul R. Preitsch has been named general manager of Gordon Prentice, Inc., Seattle, Wash., distributors of General Electric refrigerators in western Washington. He was formerly connected with the Mazda lamp division of the General Electric Co. on the Pacific coast.

# Servel Men Hear Evansville Official at Detroit Sales Meeting



**Thirty Servel dealers attended the spring sales meeting of the Michigan Chandelier Co., distributors, which was recently held at the Book Cadillac Hotel in Detroit. Vernon E. Vining, sales manager of Servel Sales, Inc., Evansville, Ind., was the principal speaker.**

## French Concern Places Order For Norge Equipment

Denby Wilkes, formerly of Detroit, now with the Societe Generale de Material Frigorifique of Paris, France, recently placed a large order with the Norge Corp., Detroit. He advises that Norge equipment will be distributed throughout France, Algiers, Morocco and Tunis.

## Reid-Bishop, Inc., Install G. E. Unit In New Texas Hospital

The new Cook Memorial Hospital located at Fort Worth, Tex., has been equipped with a large model General Electric refrigerator, by Reid-Bishop, Inc., Fort Worth, distributors. The electric refrigerator was placed in the diet kitchen.


## Tucked underneath his arm ready for another trip—

**The Slingabout makes a happier, a better, and a more efficient workman . . . and lowers overhead for the electric refrigerator dealer**

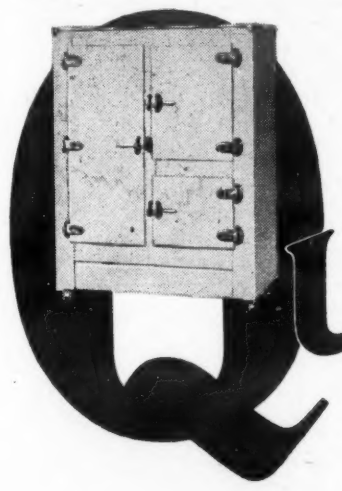
THE neatness of the Slingabout, the fact that its copper riveted, triply reinforced harness makes handling and moving easier (offering convenient, firm handholds and protection for knuckles) — these please workmen. The fact that the time of each delivery is shorter and that more deliveries can be made in the same amount of time — these *pay profits* to the dealer.

There is no expense for minor repairs on installed refrigerators that have been marred in the moving when you deliver in Slingabouts . . . no expense in bills for repairing, painting or carpentry work in homes that have been damaged. The protection of the Slingabout's heavy canvas jacket, thick cotton padding, and soft flannel lining (that comes next to the high finish of the refrigerator) means extra dollars and cents in your net profits. Some of the largest manufacturers of electric refrigerators have recommended Slingabouts to their entire dealer organizations.

Slingabouts are sturdy, serviceable and durable. We have records of some that have made more than 700 deliveries and are still in active use. Write us. Tell us the line you handle and we will quote prices. Charles J. Webb & Company, 116 Chestnut Street, Philadelphia, Pa.

WEBB *Slingabout*





QUALITY

If the manufacturing of refrigerators were only a question of sales with long profits the 45 year record of CHALLENGE would be an entirely different one.

The Challenge policy has and forever will have high Quality and only that—in this we have put our faith and on this we have built—not only for ourselves but for unit manufacturers everywhere.

The modern trend in buying is for the best the world affords, and now is the time to seize upon the RIGHT opportunity — A GENERAL TRADE ACCEPTANCE of the Challenge line to strengthen YOUR hold on your legitimate customers.

CHALLENGE REFRIGERATOR CO.
Grand Haven, Michigan

CHALLENGE *REFRIGERATORS*

# Boston Zero Club Combines Social, Instructional and Deferred Payment Features

## Novel Plan Gives Women Meeting Place Where They Learn Refrigeration While Making Down Payment

By C. E. Pellissier

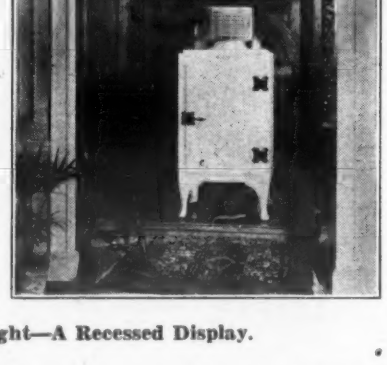
"MEET me at 'Zero'," might be heard between two Boston housewives arranging a day downtown. "Zero" is a woman's club, not a cold and chilly one as the name might indicate, but a warm and cheerful one where both member and guest receive a most hearty welcome. The name of this club is as unusual as is the club itself. The name is derived from the club's address, Zero (0) Park Street.

But what, you may ask, has all this to do with electric refrigeration? It sells electric refrigerators and makes the purchase of one an attractive proposition. It creates and builds up interest. It arouses curiosity. It gives the salesmen a strong argument. It offers to the prospect something different. Last, but by no means least, it produces a working list of A-1 prospects whose names eventually find their way to the sold columns.

About a week before Christmas this club opened. It was but an experiment, and at the same time learn many new and tempting recipes. Not only could she receive this service but also have the association of others, who also own G. E. refrigerators, in beautifully fitted club rooms and rest rooms located in the heart of the city. As a drawing card for new prospects the club has been of great value.

In putting over this club idea the newspaper advertising played a most important part. Sophisticated copy treatment featured the campaign, which is

A Corner of the Club Room at Zero Park St., Boston.



Left—Entrance to Club; Right—A Recessed Display.

and a costly one. Today, it has more than proved its value. Its reception was enthusiastic from the first. The newspaper advertisements announcing the opening of the club brought instant response, not only in Boston but from more distant points. A dealer in Connecticut received several phone calls regarding it a few hours after the first advertisement appeared.

This club was formed by the Electric Refrigerator Co. of New England, distributors of General Electric refrigerators, with headquarters in Boston. It was started in connection with the new General Electric Refrigerator Club plan of deferred payments. This plan is not unlike the Christmas Savings Bank Club idea. A membership coupon book is provided. The payments are weekly and range from $2.50 to $5 a week depending on the size refrigerator purchased. Payments are made by having the representative tear off a numbered coupon for each payment made and receipt the stub that carries the same number as the coupon retained by the company. These weekly payments are continued until the full down payment has been covered, at which time the machine is then installed in the home. From then on the payments are monthly and average no more per month than the weekly payments would have amounted to.

To make this club plan more attractive to the housewife the local company decided to really produce a club. While paying for her refrigerator the housewife could learn all the fine points about it still active. Full page advertisements figured prominently. Examples of some of the attention getting lines are as follows: "My husband said—and so would yours 'Whenever a salesman calls with such a rousing good idea take him up on it.' At once, husbands grasp an opportunity to modernize their homes on their own basis of expenditure," etc. Another begins: "On a budget I bought my car, joined a Christmas Club and now I have my General Electric all-steel refrigerator through this savings club plan." Still another opens: "'I joined the most wonderful club today and we'll have our General Electric Refrigerator in a short time . . . . just when we need it.' So says friend wife as she parks on the vantage point of her husband's chair arm." All this copy leads to the club idea of payments and the Zero Club itself. Chamber and Wiswell, Boston advertising agency, prepares the copy.

To the salesman this club has proved to be invaluable. Not only does it give him something new to talk about, but it also gives him a new method of approach. "Have you heard about the new Zero Club for women, madam?" he may ask the prospect, or, "I would like to have you visit our new Zero Club as my guest." Whatever he says, the idea is there; he has something to offer as well as something to sell. They will listen more readily. Specially designed guest cards are provided all representatives of the company for distribution. On one end of the card a space is provided for the guest to sign her name and address and on the other end space is provided for the representative's signature. This not only helps to make the card look more important but secures the name and address of the prospect without any fuss and the representative gets full credit for any attendant sale through the medium of his signature.

The Club itself is located in the center of Boston. In finding a suitable location the company decided that part of the basement of the historic Park Street Church presented the best opportunities. Ever since Boston was settled in 1630 this section has been the center of community activities. It is adjacent to Boston Common and the State House. At first glance this basement seemed impossible. It had been originally used as a storage room by a florist who still occupies part of the basement. The lighting was poor, the place unfinished, boxes and rubbish were cluttered about and, in all, the place presented a rather miserable appearance. However, after the company's architects got busy on it, the place was literally transformed.

The entrance, formerly nothing more than a plain door, is now a beautiful reproduction of a colonial entrance with its glazed sidelights and semi-circular head light. A graceful colonial stairway leads down to a broad entresol that extends along two sides of the room. Attractively arranged on this entresol are displayed some of the larger G. E. refrigerators. The room we now enter is the display room. On both sides are arranged six recesses that contain models of the smaller refrigerator, one to each recess.

Each recess is a bit of art in itself. One is done in panelled solid American walnut at a cost of several hundred dollars. Others represent colonial pine, and late Georgian oak beautifully done to reproduce the work of some by-gone period of American and English decorative art. The effect is beautiful.

The display room opens into the club rooms. The walls and general decorations represent early colonial American influence. A number of Windsor chairs and gateleg tables are placed in this room, making it convenient for the members to either partake of luncheons, listen to lectures or sit and visit without giving that distasteful classroom appearance.

### Advisory Kitchen Maintained

An advisory kitchen is also provided with the club rooms in charge of Miss Marian Dow and her assistants. Miss Dow gives a regular series of lectures every afternoon at 2 o'clock and on two mornings a week. She specializes in salads, desserts, and refrigerated delicacies The advantage of electric refrigeration is demonstrated in every possible way. The kitchen is fitted with the most modern appliances, sinks, dish washing machine, china and glass cupboards and a large size General Electric refrigerator.

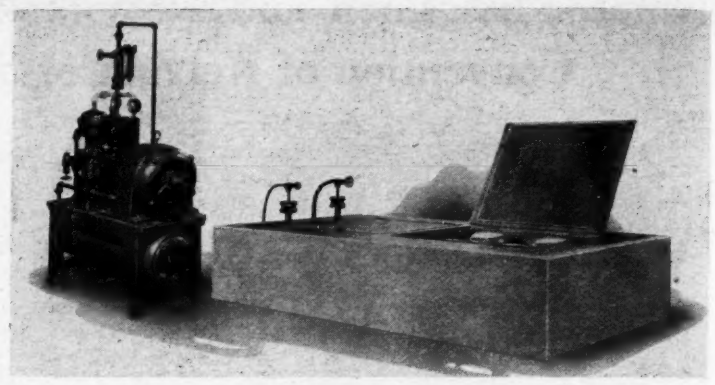
Attendance at the club lectures and meetings has been large. Miss Dow reports that the smallest attendance has never been below twenty and the average is around fifty. During one of the most severe rain storms in this section, over twenty women were present at a meeting scheduled right in the middle of the storm.

### No One Admitted Without Guest Card

Members are admitted at any time without question. Guests with cards are given every courtesy. No one is ever admitted without a signed guest card. Visitors without cards are given cards to sign by the hostess. This type of visitor is greatly encouraged for they produce excellent prospects.

A special room is provided for the members called the "powder room." It is tastefully fitted with dressing tables and closely follows the colonial design of the other rooms.

It is a club for women and a club to assist the sale of refrigerators all in one. No money was spared to make the rooms perfect and attractive in every respect. Every detail has been given close attention and the members have a club room to be proud of and to invite their friends to see. It has grown in popularity and every indication is that it will continue to grow and sell more refrigerators. Its value as an advertising medium is beyond question and its drawing power proven. It is now out of the experimental class and in the playing class.

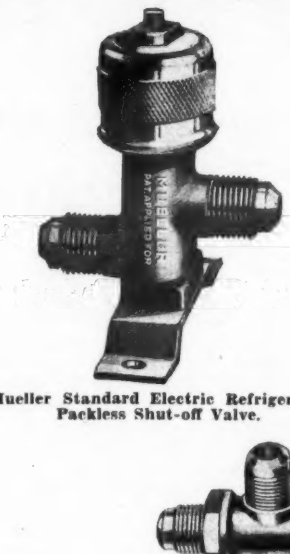
FRICK

DAIRY FARM REFRIGERATION

Hand-operated or automatic plants, with either electric or gas-engine drive; all types, using cold water tank or brine system, with or without tubular milk cooler, as desired; make ice when required. Write

Frick Company
WAYNESBORO, PA., U.S.A.
"ICE MACHINERY SUPERIOR SINCE 1853"

A Valve to Suit Your Every Need and any Combination of I. P. and Flared Tube Ends



Mueller Standard Electric Refrigerator Packless Shut-off Valve.

Mueller Flared Tube Side Outlet Shut-off Valve.

Mueller Standard 3-way Electric Refrigerator Shut-off Valve with Wing Seal Cap.

THE MUELLER BRASS COMPANY can quickly supply you with any combination of IRON PIPE and FLARED TUBE ENDS in FORGED BRASS FITTINGS.

MUELLER REFRIGERATOR VALVES and FITTINGS are made exclusively for the ELECTRIC REFRIGERATION trade from Brass Forgings and Extruded Brass rod.

SEEP-PROOF FITTINGS, combined with the experience gained from "THREE GENERATIONS OF BRASS MAKING," are your best insurance for dependable operation during the life of your installations.

Remember we manufacture a complete line of VALVES and FITTINGS.

We can supply your every requirement promptly. Ask for the MUELLER catalog of VALVES and FITTINGS. Send us samples or blue prints for quotation.

Mueller Brass Co.
PORT HURON, MICH.
THREE GENERATIONS OF BRASS MAKING

Eliminate These Problems — Sell More

MANUFACTURERS, distributors and dealers of electric refrigeration have evidenced great interest in Larkin Aluminum Plate Coils. Scores of prominent manufacturers have tested our strong claims for these coils—the coils have delivered the goods. Distributors and dealers sensing an opportunity for more sales through Larkin Coils have flooded our plant with orders.

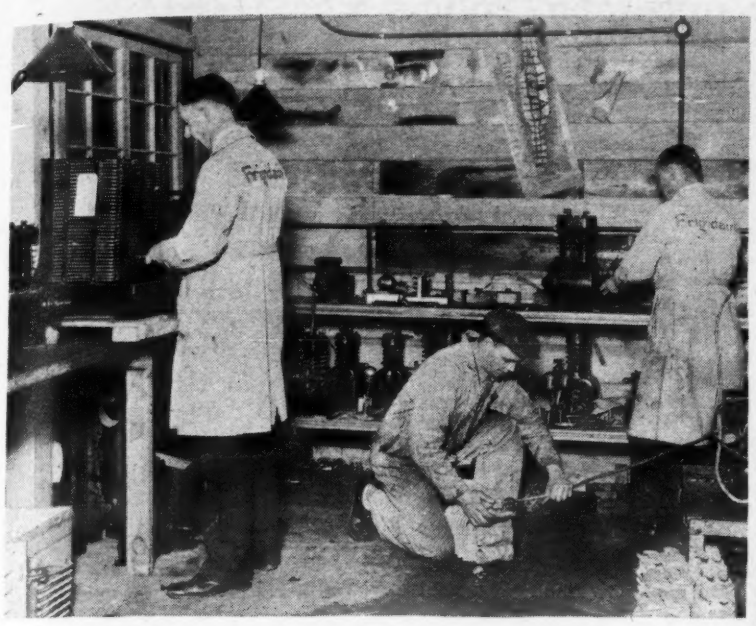
Dehydration
De-Frosting
Operating Costs

IF you have lost sales of electrical refrigeration equipment through the heretofore unsolved problems of dehydration, de-frosting and high operating costs—Larkin Aluminum Plate Coils will remove them and open the way to increased activity. Get the facts as others have—address Pierson Larkin Refrigerating Corporation, Atlanta, Georgia.

Patent 100% VERTICAL SURFACE Applied For

LARKIN COILS
FOR ELECTRICAL REFRIGERATION

# Frigidaire Branch Develops Large Sales and Service Organization at Seattle



**Above—Left to right: A corner of the assembling room of the Frigidaire Sales Corp., Seattle, Wash., where compressors are assembled; the photograph shows a ½ h.p. air cooled unit on the bench, while the man kneeling on the floor is at work on a cooling unit. Beulah Brown, a member of the branch staff, who conducts Frigidaire demonstrations in western Washington territory. Grant Fink, manager of the Seattle branch of the Frigidaire Sales Corp., who has developed an active Frigidaire organization in Washington.**

**Below—Left to right: A large Frigidaire cooling unit of the type used in butcher shops undergoing repairs in the Seattle shop of the Frigidaire branch. A crane operating on an overhead track removing a six-hole ice cream cabinet from stock in the warehouse, where a large supply of Frigidaire compressors, coils and cabinets are stored.**

## SEATTLE FRIGIDAIRE BRANCH SALES GAIN 40 PER CENT IN '29

By F. K. Haskell.

IT WAS early in 1926 that the Frigidaire Sales Corporation, decided to establish a branch in Seattle, with less than a score of employees. So rapidly did the business grow in this far western metropolis that now at the end of the first quarter of 1929 there are two hundred employed in the Frigidaire organization in Western Washington. Also, the records show that in Seattle from 300 to 560 compressor units a month in addition to coils and cabinets were installed during 1928.

It is also interesting to note, according to Grant Fink, manager of the western Washington branch, that so far in 1929 the business of the Seattle branch has shown an increase of some 40 per cent over that for the corresponding period for 1928.

More than $2,000,000 worth of Pacific northwest lumber went into Frigidaire cabinets last year and considerably more than that will be used in 1929. This concern has been buying lumber from one mill on Puget Sound for three years, and this mill has kept some thirty men busy every working day in the year manufacturing this lumber which is sized and finished here, all ready to go into the cabinets. The assembling, repairing and servicing is done in the commodious plant at 1031 Sixth Ave. S. The cabinets, coils and compressors, which arrive by the carload, are stowed away in the warehouse and brought out with a crane as needed.

The crane, built especially for this work, moves on an overhead track which runs the length of the warehouse. With it the largest cabinets and the heaviest compressors can be moved quickly.

The Seattle branch during the past year has also made some very unique installations in dairies, innumerable apartment houses, office buildings, florists shops, photograph galleries, undertaking establishments, and in one case to a bootlegger, the latter asking that he be allowed to make his own installation.

In all these varied and intensely interesting fields of activity, equipment produced in the Seattle Frigidaire assembly plant is functioning, and the installation and service force now numbers sixty-eight.

About 50 per cent of the output of Frigidaire goes into private homes. In Seattle, sales to homes for the first quarter of 1929 have been 300 per cent greater than for the first three months of 1928, and the bulk of those installed during the past thirty days include the cold control feature.

## NORGE CORP. ISSUES 1929 SALES PROMOTION BOOK

The 1929 sales promotion manual just issued by the Norge Corp., Detroit covers the entire line of Norge condensing units, cabinets and cooling units. In the compressor line three units are illustrated, while 12 models are shown in the Norge line of cabinets. Ten cooling units with ice cube capacities ranging from 30 to 189 cubes are also illustrated.

This book also contains several photographs of Norge units and parts undergoing precision tests at the factory. A section of the manual is devoted to illustrations of homes and apartment houses where Norge electric refrigerators have been installed. This section also has a number of letters from satisfied users in all parts of this country.

### L. G. Tandberg Appointed Branch Manager by Wagner

L. G. Tandberg became branch manager of the Los Angeles sales office of the Wagner Electric Corp., May 1. The office is located at 1220 S. Hope St., Los Angeles, Calif.

### O. A. Brandel Now General Sales Manager of Kohler & Chase

O. A. Brandel is now with the Norge Division of Kohler & Chase, 11 O'Farrell St., San Francisco, Calif., distributors for the Norge line in northern California, as general sales manager. Mr. Brandel was formerly with the Norge Pacific Co

### Sold 17 Carloads of Electrolux Refrigerators During April

The Heating and Appliance Co., Chicago, Ill., Electrolux distributors, sold 17 carloads of gas refrigerators during the month of April.

## SALES ENGINEER'S WORK DISCUSSED IN TREATISE

The work of the sales engineer and the problems confronting him in the business field of today are discussed in a book entitled, "Sales Engineering," by P. Edwin Thomas, B. S. In this book the subject matter is divided into four major parts: training of sales engineer; importance of writing in modern business; business law and engineering contracts and sales engineering in different phases.

Appendix A gives references for additional reading and study, while appendix B outlines the courses of commercial engineering as offered by leading universities and colleges. This book contains 224 pages and is 4½ by 6¾ in size. It is obtainable with flexible cover for $1.00.

### Named Associate Dealer For G. E. Refrigerators In Billings

Charles M. Lindsmood Music Co., Billings, Mont., has been appointed associate dealer for General Electric refrigerators in Billings, according to Kenneth Connelly, sales manager of the F. B. Connelly Co., General Electric refrigerator distributors in Billings.

### Tacoma Electro-Kold Branch Closes Two Large Orders

Two large Electro-Kold orders have been closed by Tacoma, Wash., factory sales branch of the Electro-Kold Corp. These two orders include the installation of Electro-Kold units in the Washington apartments, which contain 85 suites, and 100 units in the $400,000 Broadmore apartment buildings now under construction.

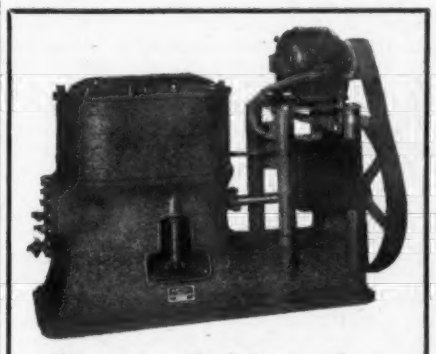
KEROTEST
FORGED BRASS VALVES
for Mechanical Refrigeration
Quality Shut-off and Cylinder valves in any standard designs or to your specifications.
KEROTEST MANUFACTURING CO.
2525 LIBERTY AVENUE
PITTSBURGH, PENNA.

### Three Distributors Display Models At Evansville Home Show

Three makes of electric refrigerators were displayed at the annual Home Complete Exposition that was held in the Coliseum at Evansville, Ind., April 16-20. The three distributors who took part in the exposition were the Refrigeration Products Co., Frigidaire; Electric Refrigerator Co., General Electric; and the Southern Indiana Gas & Electric Co., Servel.

CABINETS
BY
PUFFER-HUBBARD
are built to *your specifications* by men who know how.
PUFFER-HUBBARD MFG. CO.
MINNEAPOLIS, MINN.

The United States uses almost as much electricity as all the rest of the world combined.



Electric Refrigeration
Distributors and Dealers

You need the PEERLESS line of compressors.

PEERLESS units give you a COMPLETE line, ranging from one to ten tons.

PEERLESS Perfected Multiple Apartment System is recognized leader in its field. Full details given on request. Our record warrants your most exacting investigation.

PEERLESS ICE MACHINE CO.
515 W. 35th Street
CHICAGO, ILLINOIS

Superior
The
JURUICK
LINE

In every feature . . with quality built into every detail . . silent, smooth performance . . automatic control . . simple design . . easy to operate . . economical . . easy for the dealer to sell.

*A few good territories still open for responsible representatives qualified to install and service these machines.*

The complete Juruick line includes machines up to 30 tons capacity
AMERICAN ENGINEERING COMPANY
2420 Aramingo Ave., Philadelphia, Pa.

# SMALLER MACHINES ARE ECONOMICAL IN ICE CREAM PLANTS

### Silica Gel and Refrigeration of Pears Also Discussed by American Institute

REFRIGERATION of ice cream and pears and the operation and performance of silica gel refrigeration were included in the discussion at the eighteenth annual meeting of the American Institute of Refrigeration which was held at Washington, D. C., on May 2-3.

George E. Wallis, eastern director of sales for the Creamery Package Manufacturing Co., discussed "The Application of Refrigeration to Ice Cream Plants." "The tendency in ice cream plants," he said, "has been toward simplification and the application of the refrigerant direct to the various pieces of dairy equipment, and modern plants will be designed and operated on the direct expansion system."

The application of higher speeds to ammonia compressors has contributed to their efficiency. It is now considered good practice to install more and smaller units as compared to the movement toward larger units a few years ago. The smaller units add to the flexibility which is rather important with the unsteady load of the average ice cream plant."

Ice making tanks, while still a necessity, he believes, are not playing such an important part in ice cream plants. One of the larger plants reports that it used 43 per cent less ice in 1928 than in 1924, and at the same time had a 30 per cent increase in gallonage. This is due to the introduction of the mechanically refrigerated ice cream cabinets and to some extent to the use of dry ice.

The application of refrigeration to ice cream plants of the future will not require the circulation of brine as an intermediate agent, but on the contrary, the author stresses, ammonia will be applied direct to the various points requiring heat extraction. Recent improvements in equipment have given the direct expansion system many advantages and the initial investment and operating costs are reduced.

Silica gel refrigerator cars were described by Horace M. Wigney, manager of the Safety Refrigeration, Inc., New York, N. Y., in a paper on "Silica Gel Iceless Refrigerator Car." First the operation of the silica gel apparatus was described as being identical to the compression type machine with the compressor replaced by the absorber; the adsorption of the refrigerant vapor by the silica gel corresponding to the suction stroke of the compressor and the activation of the silica gel to the discharge stroke of the compressor.

When the silica gel has been activated, it will adsorb vapor from the refrigerant in the evaporator, causing a lowering of the temperature of the latter by evaporation of the refrigerant. Evaporation of any refrigerant in the condenser is prevented by a float and check valve. When the silica gel has become saturated with vapor, it is heated by means of a gas burner and the refrigerant vapor is driven out of the silica gel, where it is liquefied and returned to the evaporator by the float valve. The source of heat is removed when the activation of the silica gel is completed and as soon as it is cooled the adsorption phase begins again automatically. Tests show that the heating period is about 30 minutes' duration and the interval between successive heating periods is about two and a half hours for normal operation.

A thermostat is used to regulate the temperature required in the car. It can be adjusted to 20 deg. for a shipment of frozen fish, or 40 deg. for fruits or vegetables.

The performance of thirty silica gel cars in nine months of operation was discussed and the author stated that nearly 9,000,000 pounds of perishables have been transported during that period without a single claim of improper refrigeration. Fifty additional silica gel refrigeration cars are now under construction, 25 of which will be added to the fleet transporting frozen fish, while the balance will be used for transporting other perishables.

"Cold Storage of Fall and Winter Pears" was considered in a paper read by W. T. Pentzer, assistant physiologist of the bureau of plant industry, department of agriculture. The author pointed out that the production of pears is increasing about 10 per cent per year in the Pacific coast states, and the expected national production by 1930 will reach 28,000,000 bushels as compared to 21,000,000 in the 1924 and 1926 seasons. With this increase the marketing problems of the pear industry are likely to receive considerable attention in the future.

While this paper deal with the refrigeration of pears, considerable attention was given to the picking maturity of the fruit. Pears that are picked too early are often too astringent and lacking in sugar content. Storage defects most commonly associated with immature picking of pears are shrivel and scald.

Tests with pears grown in California were made at temperatures of 31 deg. F. and 36 deg. F. until their commercial storage season ended. With the shorter lived varieties, such as Hardy and Comice, the storage life was only one-half to one-third as long in 36 deg. F. as in 31 deg. F. With Winter Nellis, Buerre and Bosc, the storage life was about one to two months shorter at 36 deg. F. than in 31 deg. F.

When fruit is shipped to eastern markets, one of two methods are used, the author states. The faster ripening varieties are often placed in refrigerated rooms for precooling. This length of the precooling depends upon the temperatures and the amount of fruit in the room in relation to the refrigeration capacity, but the objective is to get the fruit cooled in the center of the boxes to 40 deg. F. or less as soon as possible. Fruit shipped without precooling has no speculative value, since its storage life is ended and a considerable loss is expected by the wholesaler. The effect of precooled fruit temperatures in transit is to add about two months subsequent life as compared to non-precooled conditions. After removal from storage, the pears should be ripened at temperatures of about 60 deg. F. to 70 deg. F.

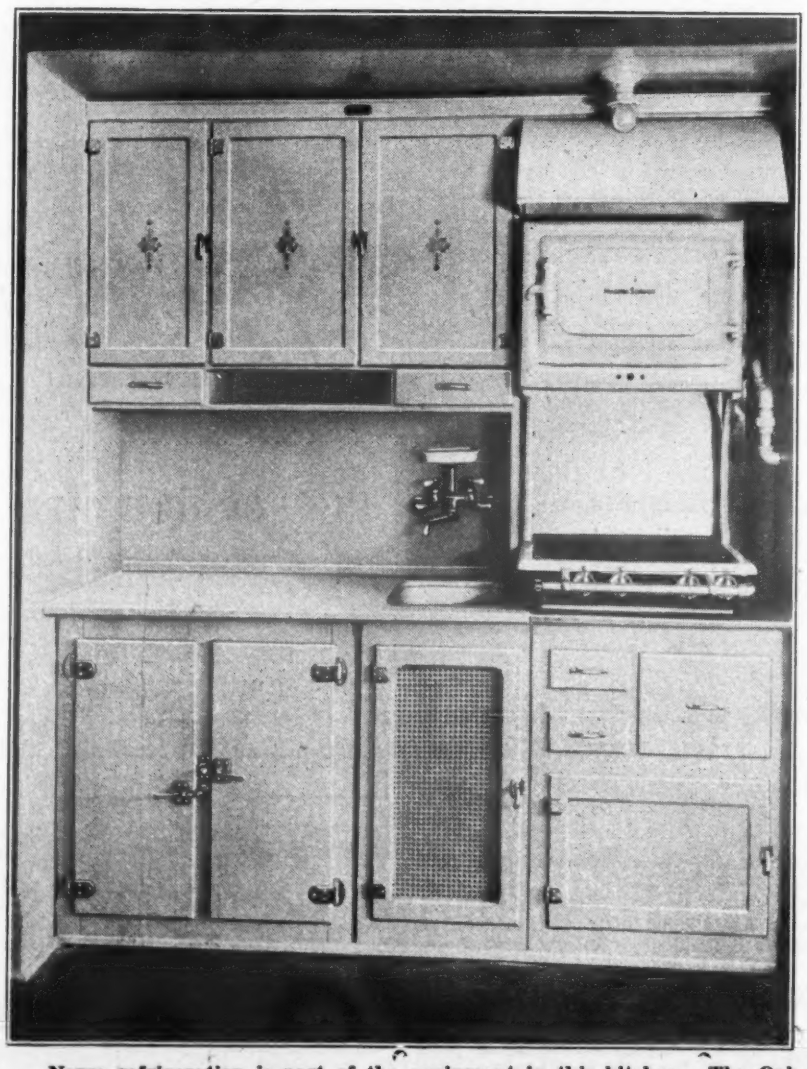
# Mil and George Present Story of Gas Refrigeration Over Radio

**A scene from the Electrolux gas refrigerator feature of National Home Hour which is being broadcast each Wednesday morning at 10:30 o'clock Eastern Daylight Saving time over the National Broadcasting network of sixteen stations from WEAF, New York City. This photograph shows George and Mil Patterson, the young couple who are featured in the weekly broadcasts, listening to the story of gas refrigeration. John Knight plays the part of George Patterson, while Gwendolyn Hathoway is Mil Patterson. J. Anthony Hughes plays the role of the Eectrolux salesman. This series of weekly programs was inaugurated on May 15.**

## Cold Control

A refrigerator manufacturer is showing a device that regulates the temperature and keeps it just above the freezing point, and I have a notion that the same result can be obtained just by announcing Mrs. Gann's arrival at a Washington society function.—*Detroit News.*

# Norge Refrigeration Gets a Place in Compact Kitchenette



**Norge refrigeration is part of the equipment in this kitchen. The Oak Ridge Apartment building in Eastchester, N. Y., has Norge refrigerator units throughout in the compactly arranged kitchens.**

**LASSEN** — TEMPERATURE — — PRESSURE — **CONTROLS**
POSITIVE RANGE AND DIFFERENTIAL ADJUSTMENT
NON-DETERIORATING MERCURY TUBE SWITCH—MEET ALL REQUIREMENTS
GOODNOW & BLAKE MFG. CO. 3840 BEAVER STREET DETROIT, MICH.

# ISSUES INFORMATION ABOUT SELECTION OF GOOD REFRIGERATORS

### Rhinelander Booklets Point Out Details to be Considered

Two booklets have recently been published by the Rhinelander Refrigerator Co., Rhinelander, Wis., addressed to the housewife. M. Attie Souder, home management specialist, Home Economics Extension Service, University of Illinois, writes on "What the Housewife Should Know About Her Refrigerator."

The essential purposes of the refrigerator are given as keeping food fresh, safe, and wholesome. The three important points in considering this are sufficient cold in the food chamber, circulation of dry air, and easy cleanliness.

In discussing sufficient cold in the food chamber, causes of food spoilage are given. Bulletin No. 98 of the United States Department of Agriculture is quoted giving the bacterial increase as 155 times as rapid in milk at 60 degrees F. as at 50 degrees. A really efficient refrigerator is designated as one having a temperature of 50 degrees or less. Insulation and construction are discussed as factors of obtaining cold.

A discussion of air circulation and ice meltage in obtaining dry air is given.

Lining of the refrigerator is given as one of the principle factors in making absolute cleanliness easy. A one-piece lining with smooth, hard surface and rounded corners is given as the ideal lining. Preparation of different lining materials is discussed.

The time of bringing the temperature back down after opening the door is given as 50 minutes after the door is open 10 minutes.

It is pointed out in a booklet "The Housewife's Refrigeration Guide," prepared by Ruth M. Kellogg, Department of Home Economics, University of Illinois, that good materials and excellent workmanship are needed to make a good refrigerator. Insulating qualities of different insulation materials is discussed, centering around cork insulation.

In construction, the housewife is advised to check the thickness of the wall, corners of the doors, construction of the outer wall, and fitting of the doors.

In discussing the lining of the box it is pointed out that the lining should be smooth, free from cracks and corners where food particles may lodge, and should be non-absorbent. Galvanized, enamel paint, true enamel, and glass linings are taken up.

Air circulation avenues in different refrigerators are described. It is pointed out that foods needing lower temperatures and absorbing odors easily should be placed where the air just leaving the refrigerating chamber will reach it. Another point stressed is the placing of food so as not to prevent circulation of air. Placing food in the ice chamber of an ice refrigerator and covering the ice is discussed.

A discussion of electric refrigeration takes up the principles of operation, installation, cost of operation. The advantages of electric refrigeration are given as lower and more even temperature, drier air, the operating without attention, and possibility of greater variation in menus.

## New Kelvinator Dealer In Memphis Gets Large Water Cooler Order

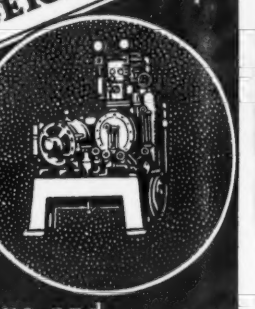
The Belvedere Stores Co., Memphis, have also been appointed Kelvinator dealers for Memphis and Shelby county, Tenn.

Officers of this concern are S. P. Freeman, president, and R. T. Hendricks, vice president. Both men were formerly associated with the Electric Appliance Corp. of Memphis.

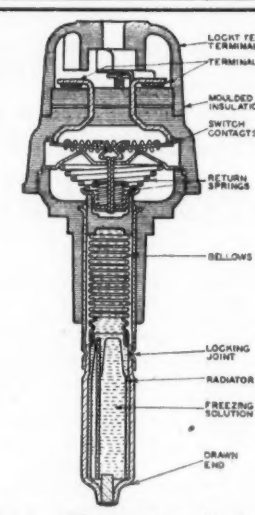
This firm has received a contract for thirty Halsey-Taylor water coolers and thirty Kelvinator condensing units from the Murray Wood Products Co.

FLINTLOCK CONDENSERS
*Efficient — Economical Compact*
**Greater Efficiency at Less Cost**
WRITE FOR OUR BOOKLET
FLINTLOCK CORPORATION
4461 W. Jefferson Ave.
DETROIT, - - MICH.

BRUNSWICK-KROESCHELL REFRIGERATION

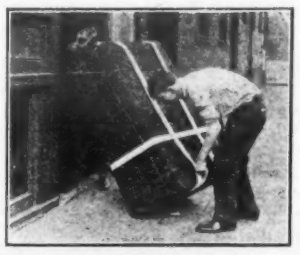


32 years of continuous and successful application
Capacities: 500lbs. refrigerating effect and up, covering the entire field of applied refrigeration,
Refrigerants: Ammonia; Carbon Dioxide; Methyl Chloride.
BRUNSWICK-KROESCHELL COMPANY
*Refrigerating & Ice Making Machinery*
NEW BRUNSWICK, N.J. - CHICAGO, ILL.

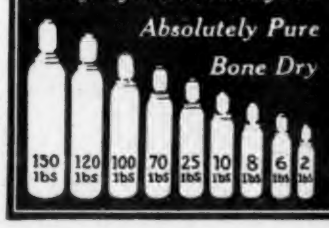



**Ranco Thermostat Controls**
for Household Refrigerators, Ice Cream Cabinets, Water Coolers, etc., maintain an even temperature. Once installed, no further adjustments necessary. Now standard equipment with many manufacturers. *Write for Bulletin 603.*
THE AUTOMATIC RECLOSING CIRCUIT BREAKER COMPANY
COLUMBUS, OHIO, U. S. A.

—PROTECT YOUR DELIVERIES
**Lansing Refrigerator Covers are made to completely cover all exposed surfaces—giving full protection against costly damage.**
*Samples of materials and prices on request.*
LANSING SALES CO.
170 Harrison Ave., BOSTON, MASS.



LANSING PADDED MOVING COVERS




*Every Cylinder Analyzed*
*Absolutely Pure*
*Bone Dry*
SULPHUR DIOXIDE *for* DIRECT CHARGING
*also* Ton Drums Tank Cars
ANSUL CHEMICAL COMPANY
MARINETTE WISCONSIN

# New Dealers and Distributors

### Copeland

**Distributors:**

H. C. Mitten Electric Co., 19 E. Market St., Huntington, Ind.
The Central Hardware Co., 1941 Broadway, Lorain, Ohio.
Acme Electric Co., 16 E. Market St., Tiffin, Ohio.
C. C. Dillows & Son, 100 Brown St., New Lexington, Ohio.
N. E. Mohn & Co., Mohn Bldg., New Bern, N. C.
Karl Winter, 662 South State St., Salt Lake City, Utah.
Easy Appliance Co., 33 East Second St., Chillicothe, Ohio.
Bankert Electric Co., 919 South Wayne Ave., Dayton, Ohio.
Elyria Superior Electric Co., 408 Middle Ave., Elyria, Ohio.

**Dealers:**

J. W. McCutchen Co., Washington, D. C.
C. I. Alexander & Sons, 437 Common St., Lawrence, Mass.
Standard Electric Co., Portsmouth, R. I.
S. W. Bond, Algonquin, Ill.
The Electric Shop, Alvin, Tex.
The Electric Shop, Freeport, Tex.
W. C. Rogers, Wharton, Tex.
Creighton Mercantile Co., Megargel, Tex.
Elkins & Co., Graford, Tex.
Farmers' Co-operative Store, Cleveland, Minn.
H. M. Haseltine, Excelsior, Minn.
Champagne Service, Inc., 235 Convention St., Baton Rouge, La.
W. E. Peterman, Flemington, N. J.
Wartz & Fuchs, Inc., 134 Main St., Hackensack, N. J.
Pickett Hardware Co., Third and Hickory Sts., Warren, Pa.
Gridley Furman Hardware Co., 216 W. Water St., Elmira, N. Y.
Rowe & Kennedy, Hunt, N. Y.
H. Ray Troll, Painted Park, N. Y.
State Auto Exchange, 435 State St., Rochester, N. Y.
Clarence A. Shoemaker, West Webster, N. Y.
Krigbaum Electric Co., 107 S. Main St., Decatur, Ill.
E. E. Baker Music House, Inc., 3121 S. Grand Blvd., St. Louis, Mo.
Levy Bros., Burlingame, Calif.
Electric Service Co., Livermore and Pleasanton, Calif.
Levy Bros., San Mateo, Calif.
Auburn Electric Co., Auburn, Wash.
Fred Pfaff, Bremerton, Wash.
Inland Auto Co., Prineville, Oregon.
E. C. Lauger, Puyallup, Wash.
Highstown Hardware Co., 111 Main St., Highstown, N. J.
T. J. McGuire, 48-50 N. Main St., Lambertville, N. J.
Yards Electric Inc., 21 W. Delaware Ave., Pennington, N. J.
John P. Servis, 30 Harrison St., Princeton, N. J.
Central Bridge Telephone Co., Central Bridge, N. Y.
Newell Tire & Electric Store, 169 Remsen, Cohoes, N. Y.
Luckey Platt & Co., 332 Main St., Poughkeepsie, N. Y.
J. L. Reese Co., Bryan, Tex.
Sterchi Bros. Stores, Inc., at Asheville, N. C., Atlanta, Ga., Chattanooga, Tenn., Rome, Ga.
Gilbert Blankenship Co., Louden, Tenn.
Wilson's Furniture Co., 300 Hanover St., Boston, Mass.
E. J. Desarmeaux, 454 Dexter St., Central Falls, N. Y.
Glover Electric Co., Conimicut, N. Y.
Mosley Electric Co., Montgomery, Ala.
Burgess Hardware & Furniture Co., Davy, W. Va.
Island Creek Stores Co., Holden, W. Va.
Carter Motor Sales, Beckley, W. Va.
Home Electric Co., Stone, Ky.
Kaufman Hardware Co., 701-703 W. Mer St., Anderson, Ind.
Marion Radio Service Co., Marion, Ind.
J. W. Brown, Marshall, Mo.
Culbertson Electric Co., Concordia, Mo.
E. V. Plush, Glasco, Kans.
Miller Hardware Co., Maysville, Mo.
J. S. Russell, Weston, Mo.
Bowen, Nuss, Brown Hdwe., Topeka, Kans.
Zellner Mercantile Co., Tonganoxie, Kans.
Willard Garage, Morrill, Kans.
H. E. Hauer, Mt. Joy, Pa.
Urbanek Furniture Co., Manitowoc, Wis.
Bobs Battery & Electric Service, Breckenridge, Tex.
Frank Deal, Wynnewood, Okla.
Service Hardware Co., 29 E. Fourth St., Dunkirk, N. Y.
Super Radio Shop, 415 Vine St., Poplar Bluff, Mo.
C. M. Vassar, Pomeroy, N. Y.
M. J. Walsh Electric Co., 106 Fourth St., Portland, Oregon.
Wholesale Radio Supply Co., Springfield, Ohio.
Harry Snook, Titusville, N. J.
F. W. Moore, 59 W. Hanover St., Trenton. N. J.
S. Weinberg, Granville, N. Y.
Louis Bubie, Poestenkill, N. Y.
Dolbeck & Leach, Ticonderoga, N. Y.
Arthur D. Roese, 53 N. Walnut St., Mt. Clemens, Mich.
J. Geo. Fischer & Sons, 222 Lapeer Ave., Saginaw, Mich.
Donnelly Refrigerating Co., Whitley City, Ky.
H. D. Thorp, Redwood Falls, Minn.
R. A. Froehlich, St. Clair, Minn.
Ralph H. Gould, Jr., 613 Lincoln Ave., Bellevue, Pa.
P. A. Schell & Co., Somerset, Pa.
E. N. Miller & Co., Verona, Pa.
Wilkinsburg Electric Co., 771 Penn Ave., Wilkinsburg, Pa.
Meier & Helfeldt, Batavia, N. Y.
Radio Service Co., 709 W. Main St., Marion, Ill.
Corcoran Hardware & Impl. Co., Corcoran, Calif.
McCormack Radio Co., Reno, Nev.
Automotive Service Station, Latah, Wash.
Pioneer Garage, Medical Lake, Wash.
Sprague Hardware & Implement Co., Sprague, Wash.
Richard H. Bell, 66 Elm St., Plattsburgh, N. Y.
Wiltse's Radio Store, Frankfort, N. Y.
R. H. McNeely, Natchez, Miss.
J. R. Neece Hardware Co., Teague, Tex.
The Hamlet Ave. Garage, 63 Hamlet Ave., Woonsocket, R. I.
Walters Radio Shop, E. Lake St., Knox, Ind.
Backman Bros., 711 Indiana Ave., LaPorte, Ind.
Carl Beach, St. Johns, Mich.
Moore & Kemple Hardware Co., LaFayette, Ind.
H. E. Hill, Zionsville, Ind.
Holm Bros., Atwater, Minn.
S. W. Artis, Ferguson, Mo.
Park Radio Co., 3458 Park Ave., St. Louis, Mo.
Mac Boyker, Kent, Wash.
Doherty-Powers Furniture Co., The Dalles, Oregon.
W. M. Bunkhard & Sons, Croghan, N. Y.
H. W. Case, 229 Norway Ave., Trenton, N. J.
Generator & Starter Co., Ltd., 15 Church St., Oshawa, Ont.
Crawford-Copeland Sales Co., 5 Wyandotte St., Windsor, Ont.
Central American Sales Association, Box 861, Balboa, Canal Zone.
Rogelio E. Pardo, P. O. Box 210, San Jose, Costa Rica.
Reesy Cardona, P. O. Box 327, Havana, Cuba.
Household Cold Storage Co., 67-69 Queens Road, Bombay, India, Marine Lines Bombay, 2.
P. Orr & Sons, Ltd., Madras, India.
Colombo Stores, Ltd., Colombo, Ceylon, India.
Arrindell, Briscoe & Co., Ltd., Lahore, Cawnpore, India.
Jose Andreu, care Andreu, Aguilar & Co., San Juan, Porto Rico.
R. E. Walker, 158 Green St., Berlin, N. H.
Fayette Supply Co., Fayetteville, W. Va.
Hancock-Pence Hardware Co., Howard, Ill.
Rodgers-Meyers Furniture Co., 1917 Elm St., Dallas, Tex.
Stoneburner Electric Co., Port Arthur, Tex.
Ellison Furniture Co., 210 Main St., Jellico, Tenn.
Uecker-Schwichtenberg Co., Waconia, Minn.
Srsen Supply Co., Owatonna, Minn.
L. M. Olson, Lake Park, Minn.
Peterson & Anderson, Monterey, Minn.
Holm Hardware Co., Grove City, Minn.
Adams Furniture Co., Crescent, Okla.
Electric Service Co., Prague, Okla.
J. E. Bennett Music Co., Cordell, Okla.
Hillsboro Maytag Co., Hillsboro, W. Va.
Minet Auto Sales & Garage Corp., Phelps, N. Y.
George A. Schindler, 1003 Yale Ave., Richmond Heights, St. Louis, Mo.
Sutter Radio Co., Granite City, Ill.
Centralia Radio Sales Co., Centralia, Ill.
W. I. Hargis Co., 837 Olive St., Eugene, Oreg.
Pioneer Radio Shop, Anacortes, Wash.
Wheat & Rue Electric Co., 1818 Westlake Ave., Seattle, Wash.
Baird Electric Store, Pullman, Wash.
Erb Hardware Co., Lewiston, Idaho.
Empire Furniture Co., 166 Howard St., Spokane, Wash.
Rees & Ratliffe, St. John, Wash.
E. W. Edwards & Son, Syracuse, N. Y.
H. W. Smith & Co., Vernon, N. Y.
Burns Appliance Store, 7 N. Montgomery St., Trenton, N. J.
Harlan Page, Saratoga, N. Y.
Winchester Co., 218 West Franklin St., Baltimore, Md.
Adaskin Furniture Co., Fall River, Mass.
Osborn Rubber Products Co., 612 Broadway, Bedford, Ohio.
E. Ellsworth Woods, 60 West State St., Battle Creek, Mich.
Rilling Electric Co., Wausau, Wis.
Johnson-Hill Co., Wisconsin Rapids, Wis.
Jones Furniture Co., Hominy, Okla.
R. E. Williams, Hollidaysburgh, Pa.
N. O. Winckler, P. O. Box 406, Westover Rd. and Central Ave., Morrisville, Pa.
E. H. Peters, Stone Road, Greece, N. Y.
Bennett & Johnson, Victor, N. Y.
Hensel Electric Co., 48 Clinton St., Albany, N. Y.
H. F. Hessell, Connell, Wash.
Paulger Battery Electric Co., Lubbock, Tex.
Decherd Furniture Co., Franklin, Tex.
Stanley Dorey, Blawonburg, N. J.
Floyd DeWick, Middlesex, N. Y.
Holden Electric Shop, Elmira, N. Y.
F. B. Howell & Son, Fairhaven, N. Y.
Burton Electric Co., Brocton, N. Y.
Ford Garage Co., Inc., Glenn Falls, N. Y.
George L. Fileman, Great Rock, N. Y.
Wellsville Storage Sales Co., Wellsville, N. Y.
Empire Radio Sales Co., Rochester, N. Y.
Brunswick Electric Co., Center Brunswick, N. Y.
Paul C. Taylor, Belmar, N. Y.
King Holt Furniture Co., Ballinger, Tex.
Marlin Battery & Vulcanizing Co., Marlin, Tex.
S. Amsler & Co., McGregor, Tex.
Jones Electric Co., Lufkin, Tex.
B. & F. Electric Co., Denton, Tex.
Finger Radio & Engineering Co., Houston, Tex.
Putnam Supply Co., Putnam, Tex.
Charles F. Ladner Hardware Co., St. Cloud, Minn.
Larson Creamery, Cologne, Minn.
Lucan Grain & Fuel Co., Lucan, Minn.
Brainard Electric Co., Brainard, Minn.
Raser & Kale, Trenton, N. J.
Mount & Craig Co., Allentown, N. J.
Radio Shop, Princeton, N. J.
Alexander Plumbing Co., Elk City, Okla.
Southwestern Machine & Supply Co., Altus, Okla.
Robuck Furniture & Hardware Co., Shawnee, Okla.
Bluefield Hardware Co., Bluefield, W. Va.
H. B. Lyons Plumbing Co., Parkersburg, W. Va.
L. C. White, Logan, W. Va.
Hudgins Electric Co., Cynthiana, Ky.
O. K. Radio Shop, Lebanon, Ky.
Friedrich & Van Sant, Langhorne, Pa.
Logan-Gregg Hardware Co., 121 9th St., Pittsburgh, Pa.
Sullivan Electric Co., West Frankfort, Ill.
Radio Service, 709 W. Main St., Marion, Ill.
J. J. Frye, Pettisville, Ohio.
Edward Piper, Stryker, Ohio.
H. C. Hall, Cornell, Wis
A. C. Accessory Shop, Temple, Kans.
Woodhull & Appleby, Bridgeport, Conn.
Abbott & Smith, Inc., Norfolk, Va.
Muscle Shoals Radio Co., Sheffield, Ala.
Arborphone Sales, Inc., Ann Arbor, Mich.
Phillips Hardware Co., Ahoskie, N. C.

### Kelvinator of Canada, Ltd., London, Ont.

**Dealers:**

W. J. Kent Co., Ltd., Bathhurst, N. B.
J. E. LaSalle, St. Jacques, Que.
George Larlee, Edmunston, N. B.
Stanley Radio Sales, St. Thomas, Ont.
Hydro Electric Power Comm., North Bay, Ont.
Electric Supply Co., North Bay, Ont.
Winnipeg Electric Co., Winnipeg, Man.
H. A. Yeo, Roblin, Man.
Jones' Music Store, Orillia, Ont.

### Servel

**Distributors:**

J. Stoneman, Clarksdale, Miss. (Electrolux).
C. F. Eckelman, Salina, Kans. (Servel-Electrolux).
Wright Shoffner Co., Port Huron, Mich. (Electrolux).
United Gas Co., Houston, Tex. (Electrolux).
J. A. Bowen, Greenville, Miss. (Servel).
Radio Supply Co., Springfield, Ohio. (Servel).
O. W. Douglass Motor Co., Covington, Okla. (Servel-Electrolux).
Alabama Electric Supply Co., Birmingham, Ala. (Servel).
Leeson & Leaverton, San Bernardino, Calif. (Servel).
Berton-Campbell Furniture Co., Ltd., Lake Charles, La. (Servel-Electrolux).
Sale Furniture Co., Mesa, Ariz. (Servel).
Central Illinois Public Service Co., Shelbyville, Ill. (Electrolux).
Biehl's Auto Parts, Pottsville, Pa. (Servel)
Ben L. Quirt, Iron River, Mich. (Servel)
New York Power & Light Corp., Ballston and Syracuse, N. Y. (Electrolux)
Central Illinois Public Service Co., Paris, Ill. (Electrolux)
Bakersfield Plumbing Co., Bakersfield, Calif. (Servel-Electrolux)
Porter Roberts Real Estate Co., Montgomery, Ala. (Servel-Electrolux)

**Dealers:**

Bidwell Electric Co., Maud, Okla. (Servel-Electrolux)
Gas Refrigeration Co., 206 E. Third St., Tulsa, Okla. (Servel-Electrolux)
Oneida Gas Co., Rhinelander, Wis. (Electrolux)
Logan Gas Co., Bellevue, Clyde and Fremont, Ohio. (Electrolux)
Ohio Fuel Gas Co., Port Clinton, Sandusky, Gibsonburg and Oak Harbor, Ohio. (Electrolux)
Gas & Electric Appliance Co., Lexington, Ky. (Electrolux)
Household Equipment Co., Waltham, Mass. (Electrolux)
Brenner Radio Shop, Lancaster, Ohio. (Electrolux)
H. M. Hanly, Glendive, Mont. (Electrolux-Servel)
Glendive Furniture Co., Glendive, Mont. (Electrolux-Servel)
Weygand Electric Co., Taunton, Mass. (Servel)
Thompson Lumber Co., Basin, Wyo. (Servel)
Edgar Bros. Co., El Centro, Calif. (Servel)
Edward Weber, Newburgh, N. Y. (Electrolux).
Montana Petroleum Co., Baker, Mont. (Servel-Electrolux).
Waterbury Bros. Transfer Co., Louisville, Ky. (Electrolux).
W. C. Martindale, Dayton, Ohio. (Electrolux).
A. M. Fry & Son, Miamisburg, Ohio. (Electrolux).
H. E. Eichman, Xenia, Ohio. (Electrolux).
Gray Electric Co., Springfield, Ohio. (Electrolux).
Mason-Waller Drug Co., Morganfield, Ky. (Servel).
Tri-Service Electric Co., Fredericksburg, Va. (Electrolux).
Manufacturers Distributor of Palm Beach Co., West Palm Beach, Fla.
T. J. Shepherd & Sons, Orleans, Ind.
Streu Hardware Co., Hereford, Tex. (Electrolux).
Atkinson-Blair Drug Co., Childress, Tex. (Electrolux).
Farmers' Grain & Implement Co., Groom, Tex. (Electrolux).
Lewis Hardware Co., Panhandle and Borger, Tex. (Electrolux).
Dalhart Gas Co., Dalhart, Tex. (Electrolux).
H. C. Kerbow & Son's Hardware & Furniture Co., Clarendon, Tex. (Electrolux).
Douglass & Son Hardware Co., Shamrock, Tex. (Electrolux).
Arcade Music Shop, Dayton, Ohio. (Electrolux).
Norton Tire & Battery, Covington, Ky. (Electrolux).
Edward Schweitzer, Fairmount City, Ohio. (Electrolux).

### Sparklets

**Distributors:**

Del-Home Light Co., 3321 Olive St., St. Louis, Mo.
Swartzbaugh Mfg. Co., Toledo, Ohio.
Arnold Stores Co., Kansas City, Mo.
H. & G. Refrigeration Co., Greenville, S. C.
Bittles Co., Newark, N. J.

**Dealers:**

D. S. Stophlet, Inc., Madison, Wis.
Becker-Marsden Co., St. Louis, Mo.
Northern Commercial Co., Seattle, Wash.
Baggett Gin & Warehouse Co., Oxford, Mass.
John B. Whittier, Oak Park, Ill.
Wellmade Electric Mfg. Co., Torrington, Vt.
Incandescent Lamp Dept. of General Electric Co., Harrison, N. J.
Household Electric Shop, Concord, N. H.
Gahm-Ericson, Arlington, Mass.
Refrigeration Service Co., 859 Boylston St., Boston, Mass.
Hornell Gas Light Co., Hornell, N. Y.
Citizens Gas Co., Stroudsburg, Pa.
Community Power & Light Co., St. Louis, Mo.
Utah Gas & Coke Co., Salt Lake City, Utah.
Polar Wave Ice & Fuel Co., St. Louis, Mo.
San Diego Consolidated Gas & Electric Co., San Diego, Calif.
Madison Gas & Electric Co., Madison, Wis.
Southwest Utility Ice Co., Oklahoma City, Okla.
Missouri Public Service Co., Warrensburg, Mo.

## Gets Copeland Distributorship In Washington, D. C.

Copeland announces the appointment of McCutchen Engineering Co. in Washington, D. C., as distributors. The McCutchen name is well known in Washington, and carries with it many years of successful engineering along similar lines. The showroom is well located at 3407 Fourteenth Street, N. W., and is completely modern, and equipped in every detail for display and sales.

## Norge Distributor Signs Up 44 Dealers In 60 Days

Ludwig Hommel & Co., Pittsburgh, Pa., distributors of Norge electric refrigerators, in a recent drive for new dealers succeeded in signing up forty-four sales outlets in sixty days' time. Newspaper and direct mail advertising was used to carry the message to prospective dealers.

## Walsh Electric Co. Takes Agency for Copeland in Portland

M. J. Walsh Electric Co., Portland, Ore., has been appointed to represent Copeland Products, Inc., in that territory. H. W. Johnson has taken charge of the electric refrigeration department of this concern.

Mr. Johnson was formerly connected with the Frigidaire Corp. in Minnesota, and recently, was sales manager of the Arch Electric Co., of Portland.

## New Concern To Handle Electric Refrigerators In Charleston

The Kanawha Refrigerator Co., Charleston, W. Va., has been formed to handle electric refrigerators. Officers of the new concern are Lon H. Kelly, Thomas B. Jackson, J. C. Morrison, Jr., L. G. Summerfield and L. Mathews, all of Charleston.

M.&W.Co 1876 LACQUERS ENAMELS

*A Lacquer Finish that Has Stood the Test*

M & W REFRIGERATOR LACQUER ENAMELS

A Quality Reputation on these products has been established through actual large quantity production on Cabinets widely distributed throughout the world.

Another complete M & W Finish including either Lacquer or Oil Primer followed by M & W Lacquer Enamel in White or Colors. We invite your correspondence regarding your particular problems.

MAAS & WALDSTEIN CO.

EXECUTIVE OFFICES AND PLANT, 438 RIVERSIDE AVENUE NEWARK, N. J.

CHICAGO OFFICE AND WAREHOUSE 1115 Washington Blvd. West

LOS ANGELES OFFICE AND WAREHOUSE 1214 Venice Blvd., Los Angeles, Calif.

**Pacific Coast Product for Western Trade**

Behind Electro-Kold—seven years successful manufacture, constant improvements in household, commercial and apartment refrigeration, lastly low freight rates to Western points and quick deliveries. These spell big profits to Pacific Coast and Western dealers. Write today for our catalog. Electro-Kold Corporation, Spokane, Washington.

ELECTRO-KOLD

Since 1922—The Simplest Electric Refrigerator.

**Reduced Rates for Group Subscription Orders to Electric Refrigeration News**

**10** or more subscriptions entered at one time $1.50 per year each.

**20** or more subscriptions entered at one time $1.25 per year each.

**Special $5.00 Group Subscription Order**

For paid-in-advance subscriptions in United States only. Send check with order.

Papers will be mailed to individual addresses.

Note: The $5.00 special offer applies to 3 subscriptions for 1 year each, or 6 subscriptions for 6 months each or 12 subscriptions for 3 months each.

Electric Refrigeration News,
550 Maccabees Bldg., Detroit, Mich.

Gentlemen: Enclosed find $5.00 for new subscriptions as follows:

Name.....
Street.....
City and State.....

Name.....
Street.....
City and State.....

Name.....
Street.....
City and State.....

One name filled in above indicates one subscription for 3 years; three names indicates three subscriptions for one year each.

Use reverse side or attached sheet for additional names; 6 subscriptions for six months each or 12 subscriptions for 3 months each.

# LITERATURE OF MANUFACTURERS

**Catalogues, bulletins and other direct advertising material recently issued.**

**Manufacturers are requested to send copies of new trade literature promptly to Electric Refrigeration News.**

### Acorn Opalite

Two combination restaurant coolers and refrigerators are illustrated in a folder showing equipment offered by the Acorn Opalite Metal Specialties Co., Chicago, Ill. The cooler section has compartments for ice cream, butter, milk and ice water, while the refrigerator, which adjoins the cooler, has facilities for preserving vegetables and other articles of food. In the ten-foot model, the refrigerator is 72 in. high, 48 in. long and 22 in. deep, while in the nine-foot model the dimensions are similar except for width which is 36 in. Four refrigerators and three restaurant coolers are also described.

### Devon

A folder has been received from the Devon Manufacturing Co., Springfield, Mass., which describes the Devon air refrigerator. Specifications of two models are listed, and a photograph shows the interior of the cabinet and the arrangement of the condensing units in the base.

### Dry-Ice

The uses of Dry-Ice in the ice cream industry are described in a booklet offered by the Dry-Ice Corp. of America, New York, N. Y. These include the delivery of ice cream in trucks and small package cartons and shipments by express. In addition, the uses of solid carbon dioxide in the meat and fish industry are also elaborated on.

### General Electric

Three bulletins issued by the General Electric Co., Schenectady, N. Y., describe single-phase, capacitor motors; enclosed, fan-cooled D. C. motors and a magnetic switch. Bulletin GEA-977a discusses the application and construction of capacitor motors. Bulletin GEA-517B describes the totally enclosed, fan-cooled motors. Bulletin GEA-1106 is devoted to CR7006-F1 magnetic switch.

### Illinois

A folder has been received from the Illinois Refrigerator Co., Morrison, Ill., which describes its new line of automatic cabinets for apartments and homes. Fifteen models are illustrated in the folder. These have food capacities ranging from 4.8 cu. ft. to 12.5 cu. ft. The advantages of Dry-Zero insulation are also discussed.

### Kleen-Heet

"The New Development in Oil Heat" is the title of a book issued by the Winslow Boiler & Engineering Co., Chicago, Ill. This book sketches briefly the developments which have been made in automatic oil heat for homes. A number of residences which are heated with Kleen-Heet oil burners are shown. A section of the book is devoted to a number of questions pertaining to the heating of the home.

### Leonard

Specifications of 64 refrigerator cabinets designed for electric refrigeration are contained in the 1929 catalog issued by the Leonard Refrigerator Co., Grand Rapids, Mich. This catalog has 40 pages and over a score of models are illustrated. These include all-porcelain models and others with steel exteriors and interiors of porcelain and enamel.

### Northey

Northey display cases, freezer counters, refrigerators and cooling rooms are illustrated in a folder received from the Northey Manufacturing Co., Waterloo, Iowa. Five display cases finished in oak and white enamel are shown.

### Rex

Apartment house and residence cabinets in the Rex line are illustrated in a folder prepared by the Rex Manufacturing Co., Connersville, Ind. Twenty models are included in this line, of which ten are shown in the folder. Exterior and interior features of the new residence models are described with the aid of two marked photographs.

### Roller-Smith

The Roller-Smith Co., New York, N. Y., in a supplement to its bulletin No. 300 announces a new type HTD radio continuity tester. This device is offered for making continuity and resistance tests on radio receiving and transmitting sets and other radio equipment.

### Stanley & Patterson

The Stanley & Patterson Co., New York, N. Y., has issued a catalog which is devoted to its line of electric refrigerators. This catalog contains a number of illustrations of Seeger cabinets which are used with Stanley & Patterson condensing units. Photographs of two water coolers, a compressor and cooling unit are also included.

### Super-Cold

"Retail Meat Merchandising" is the title of a brochure issued for operators of chain meat markets by the Commercial Refrigerator Manufacturing Co., Los Angeles, Calif., manufacturers of the Super-Cold display case. Included in this treatise is a discussion on how to develop a successful chain of markets, refrigeration costs, spoilage and dehydration. How the Super-Cold case reduces meat losses, labor costs and increases sales is also covered in this pamphlet?

### Sure Cold

Sure Cold compressors are described in a broadside issued by the Warner Steel Products Co., Ottawa, Kans. Condensers, frame, cylinders and crank shafts are discussed with the aid of a marked photograph. A No. 1½ cooling unit and three cabinets are also illustrated in this piece.

### Wagner

Wagner Electric Corp., St. Louis, Mo., has issued a new bulletin No. 163 on rubber-mounted motors in ratings of 1-6, 1-4 and 1-3 hp. This bulletin goes into detail regarding the changes in motor design embodied in these motors, changes in the rotor, governor weights and frame, as well as in the method of mounting.

### Whitehead

The Whitehead Refrigeration Co., Detroit, Mich., a division of the Whitehead and Kales Co., announces a new model designed for installation in apartments and small homes. A broadside contains illustrations of the cabinet and compressor. The cabinet has food storage capacity of 4.5 cu. ft. The compressor which is of the reciprocating type is equipped with a 1-8 hp. motor.

## Credit Investment Trust Co. Finances Holmes Sales

Holmes Products, Inc., New York, N. Y., has recently worked out a financing plan with the Credit Investment Trust Co. to enable Holmes dealers and distributors to sell on the time payment plan.

## Des Moines Frigidaire Branch Moves to New Quarters

The Des Moines, Ia., branch of the Frigidaire Sales Corp. announces that it has moved its office to the new Main building at Fourteenth and Walnut Sts. Other departments will be moved to the new quarters later.

# Transportation Paralyzed, Dog Team Makes Delivery

**Arrival of G. E. Unit at Customer's Home.**

Delivery of a General Electric refrigerator by dog team to one of its customers in Rexburg, Idaho, was an innovation recently adopted by the Utah Power & Light company. This novel means of transportation was made necessary due to the fact that the present winter was the most severe experienced in the territory known as the company's Idaho Falls division during the last forty years. This refrigerator was delivered on February 8, at which time highways and many city streets were snow-blocked, and the temperature was around 29° below zero. The problem of making delivery of the refrigerator presented a baffling situation, because of practically every form of transportation being paralyzed, but the dog team idea came to the rescue; and the customer, F. L. Erdman, a prominent business man of Rexburg, received his purchase safe and sound, at his home, with very little difficulty being experienced by the team and driver.

The team of dogs used was the one which participated in races at Rexburg on February 4, and was owned and driven by V. J. Davis.

This incident is a striking example of the fact that electric refrigeration is in demand not only in spring, summer, fall and ordinary winter weather, but also in the severest kind of winter season. This particular customer very definitely stated that he had become completely "fed up" on the inconvenience and nuisance occasioned by having to remove four or five inches of frozen milk from the bottle every morning, and the necessity of using an ax on meat that had acquired the hardness of concrete as a result of the cold weather.

# REQUESTS FOR INFORMATION

**Readers who can assist in furnishing correct answers to inquiries or who can supply additional information are invited to address Electric Refrigeration News, referring to the query number.**

### Iso-Butane

*Query No. 243*—A reader in Virginia asks, "Will you kindly furnish us with the name of a manufacturer of iso-butane?"

**Note**—Iso-butane is manufactured by the Carbide, Carbon & Chemical Co., 30 East 42nd St., New York, N. Y.—Editor.

### Compressor Castings

*Query No. 244*—A reader in Pennsylvania writes, "Kindly forward us a list of manufacturers of refrigerator compressor castings."

**Note**—The following concerns manufacture refrigerator compressor castings: Gale Manufacturing Co., Albion, Mich., and the Flint Foundry Division of General Foundry & Machine Co., Flint, Mich.

### Kerosene Operated Refrigerator

*Query No. 245*—A reader in Pennsylvania writes: "I have been told that in July or August, 1928, an automatic absorption household machine similar to the Electrolux was advertised. This machine was heated by an oil burner. I would appreciate it, if you would give me the name and address of the manufacturer."

**Note**—The Perfection Stove Co., Cleveland, Ohio, makes a kerosene operated absorption type refrigerator known as the "Superfex." This machine is not entirely automatic since it must be generated every 24 hours.

### Liquid Strainer For SO2 Machine

*Query No. 246*—A subscriber in Alabama writes, "Please advise what manufacturer uses the trade mark M. B. Co. This manufacturer is making a liquid strainer for the use on sulphur dioxide machines. It is all brass and the inside strainer is accessable by a flare nut."

**Note**—The Mueller Brass Co., Port Huron, Mich., manufacturers of copper tubing and brass fittings, use the trade mark M. B. Co. —Editor.

## Replies to Previous Queries

**Query No. 239**—The Peerless Ice Machine Co., Chicago, Ill., writes, "We make water valves suitable for installation with Kelvinator water-cooled condensing units."

# "PLEASE CHANGE MY ADDRESS"

**Recent movements of subscribers as indicated by changes in mailing addresses.**

**Alexander, H. W.** from 420 Lexington Ave. to Autodrink Corp., 245 Fifth Ave., New York, N. Y.

**American Refrigerator Corp.**, from Peru, Ind. to Greenville, Mich.

**Anderson, Wm. C.**, from Worcester Suburban Elec. Co., Grafton, Mass. to Worcester Suburban Elec. Co., Littleton Road, Chelmsford, Mass.

**Browne, Neil N.**, from 3806 Lowell Ave. to 4118 N. Kedvale Ave., Chicago, Ill.

**Carlton, W. E.**, from 1911 Monroe St., Wichita Falls, Texas, to 5843 Ovom St., Dallas, Texas.

**Chesney, Charles**, from Chesney Servel Co., 204 N. Morton, Okmulgee, Okla. to Chesney Servel Co., 109 Jefferson, San Angelo, Texas.

**Clarke, R. C.**, from 4145 Murray Ave., to 639 East End Ave., Pittsburgh, Pa.

**Collier, Chas. E.**, from Pictorial Review, 900 Century Bldg. to 919 N. Michigan Ave., Chicago, Ill.

**Community Oil Burner Supply Co.**, from 330 West Main St. to 230 W. Main St., Belleville, Ill.

**Edson, A. B.**, from 36 S. 17th St., Philadelphia, Pa. to 44 Linden Ave., Lansdowne, Pa.

**Ettinger, Hal**, from 129 East Burnette, to 1967 Douglas Blvd., Louisville, Ky.

**Gas-Oil Burner Appliance Co.**, from 566 Bay St., Stapleton, S. I., N. Y. to 1183 Bay St., Rosebank, S. I., N. Y.

**Grabey, Chas. H.**, from c/o Metropolitan Edison Co., 412 Washington St., Reading, Pa. to to 121 N. 3rd St., Hamburg, Pa.

**Gwyer, Herbert J.**, from 488 Carol Place, Pelham Manor, N. Y. to 149 Harrison St., East Orange, N. J.

**Harris, Richmond**, from 425 Cary Ave., Highland Park, Ill. to 400 Deming Place, Chicago, Ill.

**Hodgskiss, G. H.**, from c/o Century Electric Co., 208 W. Washington St. to 400 W. Madison St., Chicago, Ill.

**Hunting, Earnest W.**, from 1376 Morris Ave., Elizabeth, N. J. to R.F.D. Lancaster, Mass.

**Johnson, B. A.**, from 1645 S. Gunderson Ave., Berwyn, Ill. to 906 S. Humphrey Ave., Oak Park, Ill.

**Kalatz, John**, from 1218 W. Washington Blvd. to 9441 S. Cottage Grove Ave., Chicago, Ill.

**Longwinter, Jos.**, from 494 E. 143rd to 14404 Lake Shore Blvd., Cleveland, Ohio.

**Messersmith, Albert**, from 168 Sterling Ave. to 161 Frontenac Ave., Buffalo, N. Y.

**Montgomery, R. E.**, from Servel, Inc., Evansville, Ind. to Atlas Supply Co., Muskogee, Okla.

**Page, E.**, from 121 McCandles Ave. to 5521 Camelia St., Pittsburgh, Pa.

**Pleasant, H. E.**, from 563 Shoop St., Dayton, Ohio to Westinghouse Elec. & Mfg. Co., Mansfield, Ohio.

**Pohlman, Guy**, from 1838 Kielen Ave. to Route No. 7, Box No. 830, Edmondson Road, St. Louis County, Mo.

**Rockhill, John**, from 2806 Fox Ave. to 4125 S. Hoagland, Fort Wayne, Ind.

**Santa Monica Radio Co., Inc.**, from 305 Santa Monica Blvd. to 702 Santa Monica Blvd., Santa Monica, Calif.

**Servell, Paul**, from 423 37th St. to 205 6th Ave., Brooklyn, N. Y.

**Smith, E. H.**, from 4678 Mascot St. to 1356 Meadowbrook Ave., Los Angeles, Calif.

**Watson, W. E.**, from 12095 Mettetal Ave. to 11721 Sorrento Ave., Detroit, Mich.

**Willson, Wm. H.**, from 290 Lyon St. to Apt. 7, 495 Cass St., Milwaukee, Wis.

**Wilson, William Robert**, from 2192 First National Bank Bldg. to 3102 Union Trust Bldg., Detroit, Mich.

**Wright, B. F.**, from Servel Inc., Evansville, Ind. to 4928 Maplewood Ave., Detroit, Mich.

# ADDRESSES WANTED

**Copies of the News sent to subscribers listed at the addresses given below have not been delivered. Readers knowing the present whereabouts of these subscribers are asked to send such information to the News.**

**Almvig, O. G.**, Hot-N-Kold Corp., 417 Sutter, San Francisco, Calif.

**Baker, Lewis W.**, 3005 Eads Ave., St. Louis, Mo.

**Bray, Peter P.**, 1609 S. 49th Court, Cicero, Ill.

**Colnes, Robt. M.**, 3436 Ward St., Pittsburgh, Pa.

**Cotter, Harold J.**, P.O. Box 957, New Bedford, Mass.

**Henshaw**, Hot-N-Kold Corp., 417 Sutter, San Francisco, Calif.

**Mathis, Frederic R.**, 5726 Winthrop Ave., Chicago, Ill.

**Osper, J. A.**, Suite 36, 16 Westland Ave., Boston, Mass.

**Sloan, C. R.**, Hot-N-Kold Corp., 417 Sutter, San Francisco, Calif.

**Smith, R. C.**, 849 Grace St., Chicago, Ill.

**Stock, J. W.**, Hot-N-Kold Corp., 417 Sutter, San Francisco, Calif.

**Wallace, R. O.**, Hot-N-Kold Corp., 417 Sutter, San Francisco, Calif.

# THE CONDENSER

**ADVERTISING RATE** fifty cents per line (this column only).

**SPECIAL RATE** if paid in advance—Positions Wanted—fifty words or less, one insertion $2.00, additional words four cents each. Three insertions $5.00, additional words ten cents each. All other classifications—fifty words or less, one insertion $3.00, additional words six cents each. Three insertions $8.00, additional words sixteen cents each.

**POSITIONS AVAILABLE**

**EXPERIENCED** service man for commercial and household electric refrigeration. State experience and salary required in first letter. Marsden's Store Fixture House, Inc., 30-38 James Street, East Providence, Rhode Island. Established 35 years.

**FACTORY** representatives wanted to handle the sales of a solid porcelain line of refrigerator cabinets, adapted for use with all makes of domestic electric refrigeration. We will also give sales right on our commercial line of refrigerators for use in hotels, hospitals, clubs, etc. Here is an opportunity for the highest grade men trained in refrigeration, to represent a company of 80 years' standing in the field. Please address communications to The Jewett Refrigerator Co., Buffalo, New York.

**MANUFACTURER** of well-known line of steel apartment house cabinets wants commission salesman to sell cabinets to ice machine dealers, apartment owners and apartment builders. Give reference. Box 168.

**POSITIONS WANTED**

**SALES EXECUTIVE.** Now available, 44 years of age, with fifteen years' executive experience organization. Direct mail advertising, follow up and closing. Just completed market analysis on electric refrigeration. Possess leadership, initiative combined with personality and magnetism. References satisfactory. Box 163.

**SALES AND SERVICE ENGINEER**, an experienced organizer, specializing in co-ordinating these two vital factors; an active worker with excellent record on electric and gas types in larger Eastern cities; at present employed but seeks new connection with strong firm offering recognition and advancement. Best references available on request. Box No. 170.

**MISCELLANEOUS**

**BUSINESS OPPORTUNITY**—To purchase a growing refrigerator manufacturing plant, well equipped, doing a nice business. Good reasons for selling. Address Box No. 169.

**LARGE MANUFACTURER** has developed electric domestic refrigeration unit, and is prepared to supply same to well-established distributing organization in any quantity, at favorable prices. This unit is direct connected to motor, no belts, compact, no vibration, is silent, air cooled, low power consumption, no interference with radio, may be placed above or below space cooled.
**Address:**
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N. E. L. A. Convention Special

In Two Parts — PART I

# ELECTRIC REFRIGERATION NEWS

The business newspaper of the refrigeration industry

VOL. 3, NO. 20, SERIAL NO. 70 | Copyright, 1929, by Business News Pub. Co. | ATLANTIC CITY, NEW JERSEY, JUNE 5, 1929 | Entered as second class matter August 1, 1927, at the Post Office, Detroit, Michigan. | PRICE FIFTEEN CENTS

# $25,000 Home And Car To Be Prizes In Food Preservation Essay Contest

## KELVINATOR CABINET MAKES PARACHUTE DROP FROM PLANE

ONE of the most dramatic incidents of the N. E. L. A. convention was the airplane delivery of the first model of the new Kelvinator Four at the pergola fronting of the new Municipal Auditorium at Atlantic City on Tuesday at 1.45 p. m.

The new Kelvinator unit with a parachute affixed was dropped from a speeding plane and recovered by a Christcraft speed boat and brought to the boardwalk. Upon opening the refrigerator letters addressed to Mayor Anthony Ruffu, of Atlantic City, and P. S. Arkwright, president of the National Electric Light Association, were found. These letters were sent by Mayor Lodge, of Detroit, Mich., and the president of the Detroit Chamber of Commerce. The letters to P. S. Arkwright invited consideration of Detroit as the next N. E. L. A. convention city.

This modern method of delivery was consummated through a special arrangement with Eddie Stinson, president of the Stinson-Detroit Aviation Co., who personally piloted the plane. Accompanying Mr. Stinson was Campbell Wood, utility sales manager of the Kelvinator Corp., who directed messages to the great throng on the boardwalk in front of the convention hall after adjournment shortly after noon on Tuesday.

The unit which made the drop was of all steel rust-proof construction. It arrived at the pier in perfect condition after a drop of approximately 1,500 feet into the surf.

## LEONARD PRODUCTION UP

Leonard Refrigerator Co., Grand Rapids, Mich., reports the production of 36,512 cabinets in May, the largest output in the history of the company.

## PART I OF THIS ISSUE EDITED AT CONVENTION

FOLLOWING the plan used during previous years one section of this issue of the NEWS was edited in Atlantic City during the annual convention of the National Electric Light Association, so that copies of the paper containing news and pictures secured at the meeting could be distributed while the convention is still in progress.

Printing and engraving for Part I was done in Philadelphia (an hour's ride from the convention). Part II was produced in Detroit as usual. One thousand copies of Part II were shipped from Detroit to Atlantic City for enclosure with 1000 copies of Part I delivered from Philadelphia. Nine thousand copies of Part I were expressed from Philadelphia to Detroit to include with Part II for mailing to regular subscribers.

Again the NEWS renders a service in keeping with the aggressive spirit of its readers and lives up to its name as "the business newspaper of the refrigeration industry."

## G. E. OUTLETS TO HANDLE NEW ICE CREAM FREEZER

The Gardner half-minute freezer is being sold exclusively by General Electric distributors and dealers. Through a very simple method this device makes ice cream in 30 seconds. This device consists of roller freezer, within which ice cubes or cracked ice are placed and dressed with rock salt.

The roller fits into a freezing casing and is operated with a handle. The mixture is poured between the roller and the casing. By revolving the roller the cream freezes to it and is freed by a remover.

## FRIGIDAIRE BRINGS MILLIONTH UNIT TO N. E. L. A. CONVENTION

BEARING a gold serial plate, the Millionth Frigidaire, produced at the Moraine plant of the Frigidaire Corporation on May 16, arrived at the Atlantic City Airport Saturday afternoon, June 1, having been flown from Dayton, Ohio, a distance of 535 miles, in approximately five hours.

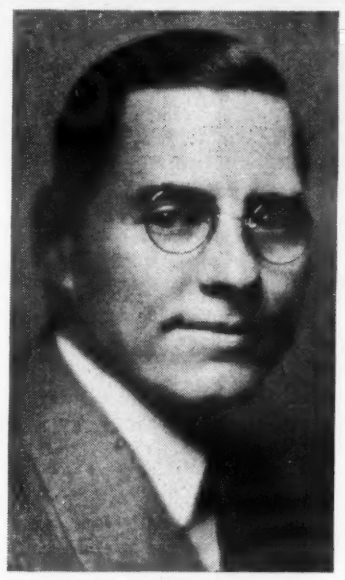
The plane, a new type Fokker transport F-TEN-A, was piloted by Lieutenant John A. Macready, one-time holder of three world's aviation records. This was his first cross country flight since resigning from the U. S. Air Corps three years ago to join the engineering department of the Frigidaire Corp. The plane left Dayton at 10 A. M. and arrived in Atlantic City at 3.30 P. M. A stop-over of 25 minutes was made at Logan Field in Baltimore.

With the millionth machine as passengers were Mrs. Macready, Mr. and Mrs. C. T. Mutchner and Tom Hook, editor of the "Dayton Daily News."

## PRESIDENT OF A. S. R. E. EXTENDS INVITATION

The following telegram has been received from Professor A. J. Wood, president of the American Society of Refrigerating Engineers:

"The president extends an invitation to all interested to attend the spring meeting of the American Society of Refrigerating Engineers, at State College, Pa., June 20-22. Good papers on electric refrigeration will occupy one session. For accommodations notify, without delay, local committee A. S. R. E., Box 785, State College, Pa. Give time of arrival, number in party and if coming by automobile. Further information on request."



P. B. ZIMMERMAN

**Who presented the National Food Preservation Program at the N. E. L. A. Convention.**

## WILLIAMS HOLDING BIG INTERNATIONAL MEETING

A new line of Ice-O-Matic Junior electric refrigeration units, with retail prices ranging from $75 to $235, was announced on Monday morning by C. U. Williams, president of the Williams Oil-O-Matic Heating Corp., at a 6 a. m. breakfast of 100 field representatives. The new line of larger Ice-O-Matic units will be in production in August and the Ice-O-Matic Junior production line by September 1.

These were shown for the first time Monday morning when the fifth international Williams convention opened at Bloomington, Ill. More than 3,000 distributors, dealers, salesmen and servicemen are attending the sessions, which are being held in two new factory units that were recently completed.

## PLAN PRESENTED AT N. E. L. A. CONVENTION

REPRESENTING the National Food Preservation Council, the organization of which is reported on page 1, part II, of this issue, P. B. Zimmerman, general sales manager, Electric Refrigeration Dept., General Electric Company, Cleveland, explained the plan for a nation-wide educational program at the second general session and at the Commercial Sections session of the National Electric Light Association, held in the mammoth new auditorium of Atlantic City, N. J., Wednesday, June 5th. He said:

"The National Food Preservation Council appreciates the time allotted for the presentation of this program. We have been working on it now for over six months and welcome the opportunity to present it to you, who are probably most interested in it, and what it hopes to accomplish. As a great many of you know, the program was undertaken by the National Electric Light Association at the suggestion of the Refrigeration Committee, of which C. L. Dunn, of the Ohio Public Service Co., is chairman.

"The National Food Preservation Program will have as its objective four major ideas to impress on the American public:

(1) The necessity for keeping perishable food below 50 degrees.
(2) The relationship between food spoilage and health.
(3) The causes of food decay and bacterial growth.
(4) The vital need for proper all-year-'round refrigeration.

"To accomplish these objectives we have laid out both a national and a local plan of action. The national plan will be carried out by the Executive Committee, of which Marshall E. Sampsell, president of the Central Illinois Public Service Co., is chairman and under which will function the Publicity Committee, which is headed by George Oxley, of the N. E. L. A.

"Advertising in the September issues of the leading national magazines will

(*Concluded on Page 13, Column 2*)

## Electric Refrigeration Men Attending the N. E. L. A. Convention in Atlantic City

(1) H. C. Whitmore, Kulair, Philadelphia, (2) J. H. Knight, Frigidaire, New York, (3) E. D. Doty, Frigidaire, Dayton, (4) Frank Cotton, Frigidaire, New York, (5) G. S. Jones, Frigidaire, Dayton, (6) J. K. Knighton, Frigidaire, Dayton, (7) C. T. Mutchner, Frigidaire, Dayton, (8) E. S. Lape, Kulair, Philadelphia, (9) J. A. Borland, Frigidaire, New York, (10) A. A. Jones, Frigidaire, (11) H. A. DeLashmutt, Electric Refrigeration News, New York, (12) G. R. Cullen, Kelvinator, Detroit, (13) B. C. Wilson, Mac Manus, Inc., New York, (14) W. J. Daily, General Electric, Cleveland, (15) J. H. Neebe, Campbell-Ewald, Detroit, (16) A. M. Taylor, Copeland, Detroit, (17) H. A. Brysselbout, Copeland, Detroit, (18) J. T. Coventry, Frigidaire, New York, (19) H. N. Felton, Wagner Electric, New York, (20) Harry Underwood, Kelvinator, Detroit, (21) P. L. Lewis, Wagner Electric, Kansas City, (22) R. M. Martin, Kelvinator, Detroit, (23) H. L. Nagel, Wagner Electric, St. Louis, (24) V. C. Woodcox, Kelvinator, Detroit, (25) H. B. Keath, Wagner Electric, St. Louis, (26) G. S. Miller, General Electric, Philadelphia, (27) George Nelson, Wagner Electric, Chicago, (28) J. J. Donovan, General Electric, Cleveland, (29) A. D. Farrell, Frigidaire, Dayton, (30) R. W. Piper, Wagner Electric, St. Louis, (31) W. R. Winans, Frigidaire, New York, (32) Weston Vogel, Savage Arms, Utica, (33) S. E. Demerest, Kulair, Philadelphia, (34) J. M. Fernald, Kelvinator, Detroit, (35) Raymond Zindle, General Outdoor Adv. Co., (36) W. A. Bowen, Jr., Leonard, Grand Rapids, (37) P. H. Puffer, Leonard, Grand Rapids, (38) Richard Fassnacht, Leonard, Grand Rapids, (39) F. M. Corliss, General Electric, Cleveland, (40) M. T. Bard, General Electric, Cleveland, (41) J. T. Dickson, General Electric, Cleveland, (42) W. E. Landmesser, General Electric, Cleveland, (43) F. M. Cockrell, Electric Refrigeration News, Detroit, (44) M. J. Goulooze, Leonard, Grand Rapids, (45) W. M. Timmerman, General Electric, Cleveland, (46) L. W. Driscoll, General Electric, (47) C. L. McCrea, National Electrical Supply Co. (General Electric) Washington, D. C., (48) P. B. Zimmerman, General Electric, Cleveland, (49) J. J. Leonard, Seeger, St. Paul, (50) H. W. Burritt, Kelvinator, Detroit, (51) K. S. Baxter, Copeland Refrigerator Co. of N. Y., New York, (52) W. G. Reilly, Kelvinator, Philadelphia, (53) C. J. Baker, Kelvinator, (54) F. T. Williams, Copeland, Detroit, (55) Gordon Wootton, Seeger, New York, (56) Earl Lines, Kelvinator, Detroit, (57) W. G. Seeger, St. Paul, (58) W. F. Thorpe, Kelvinator, Detroit, (59) Rex Cole, New York, (61) F. W. Brack, Electric Refrigeration News, Detroit, (63) R. G. McCord, Bohn, St. Paul.

Copeland

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*for* Residence *or* Business *all sizes - all prices*

COPELAND'S rapid rise to prominence in the field of electric refrigeration was inevitable, for Copeland has the two requisites of success—

*First*, highest obtainable quality in materials and highest degree of precision in all manufacturing steps.

*Second*, a wide range of products with which to satisfy the refrigeration requirements of any home, any apartment or any business.

Copeland *quietness* and *dependability* are too well known to require comment. And Copeland electric refrigerators, separate units for present ice boxes, multiple installations for apartments, units for commercial refrigeration, water coolers and milk coolers provide a *complete* line from which to secure *profitable* sales.

Copeland invites correspondence from individuals or groups of men who are interested in marketing electric refrigeration; and Copeland promises to submit an unusually attractive proposition, provided references are acceptable and territorial requirements can be satisfied.

COPELAND SALES CO., 630 LYCASTE AVE., DETROIT

# N. E. L. A. EXHIBITS

## COPELAND PRESENTS MODELS IN BOTH "N" AND DE LUXE LINES

Copeland Products, Inc., of Detroit, Mich., is showing its entire line—commercial, domestic and apartment house installations. A special commercial refrigerator of the walk-in type, built by the Seeger Refrigerator Co., of St. Paul, Minn., is being featured. This is approximately 9 feet wide by 5 feet deep and 8½ feet high, with an overhead bunker for the installation of zero tubes. Lights are installed in the inside of this refrigerator, both in the storage compartment and in the coil compartment, with a mirror arranged in the top of the bunker so that anyone standing in the storage compartment may look up the flue and see the zero tubes in operation.

Copeland's ace, the De Luxe type of refrigerator, is being shown with a complete line of five types, ranging from 6 to 20 cubic feet storage capacity. These boxes are featured by electric lighting in the interior, extra heavy insulation and massive, deep-etched hardware.

Copeland's medium-priced CS line is also on exhibit with all 3 models, of five, seven and nine cu. ft. capacity, all in two-tone porcelain.

The N line is represented with all four models, of five and seven cu. ft. capacity. An unusually instructive exhibit is that showing Copeland's line of multiple installation for apartment houses.

In addition to the featured Seeger walk-in box, there is a Seeger freezing counter and a specially designed cafeteria type box, all operating from a model W condensing unit.

Copeland water coolers of the latest types, zero tubes and coils, milk cooler and ice cream cabinet units are shown.

Copeland is represented this year by Louis Ruthenburg, president; W. D. McElhinny, Charles W. Hadden, A. M. Taylor, Henri Brysselbout and Frank Williams.

## BOHN SHOWS ALL PORCELAIN CABINETS

All porcelain cabinets are being exhibited by the Bohn Refrigerator Co., St. Paul, Minn., in its booth located directly across from the Frigidaire showing. The refrigerators on display are typical of the all porcelain line offered by Bohn. A large commercial cabinet has food storage capacity of about 40 cu. ft.

Two sample models of the line built for the General Electric Co. are being shown. Both cabinets have the General Electric unit installed and have capacities of 13 and 17 cu. ft. respectively. Merchant & Evans and Calvert also use Bohn refrigerators. One of the cabinets on display can be used for either ice or electric refrigeration.

R. G. McCord, sales manager, is in charge of the exhibit and he is being assisted by L. S. Murray and A. M. Nordland.

## KELVINATOR DISPLAY HAS LARGE NUMBER OF WORKING MODELS

Thirty-three units are in operation at the large display quarters of the Kelvinator Corp.

Kelvinator's domestic line contains 22 models with food capacities from 4 to 12 cu. ft. Three colors, Chinese red, apple green and cream are featured in the domestic products. These cabinets are finished in enamel and lacquer. In the apartment house group four units are shown, two of which are designed for self-contained or multiple installation.

Five water coolers of both the pressure and bottle types are in the Kelvinator line. These are designed for installation in offices and factories and for other commercial purposes. Two groups of compressors in operation are set up on the display floor. These include commercial models F-10, WF-20, F-30, WF-40, WR-40, R-30, F-11, WF-21, F-31 and WF-41. The WF are water cooled machines. Along with the compressors a complete line of low side for commercial installation is featured.

The commercial jobs equipped with Kelvinator units include a milk cabinet manufactured by the Esco Cabinet Co., West Chester, Pa., a Leonard and Seeger commercial cabinet, a Hussmann walk-in cooler, a Hill display case, a Knight soda fountain, and an Oreole florist case.

Earl Lines and Ray M. Martin are in active charge of the booth. Other Kelvinator officials present are George W. Mason, president; H. W. Burritt, Campbell Wood, J. S. Sayre, E. A. Siebert, J. Fernald, Edward Heitman, R. A. Lundquist, H. A. Sieck, J. C. Burton, J. A. Corcoran, C. C. Thomas and John W. Wiley, Jr.

## SAVAGE ARMS CORP. DISPLAYING 3-HOLE ICE CREAM CABINET

Savage Arms Corp., Utica, N. Y., is showing a three-hole self-contained ice cream cabinet in its display of electrical appliances. This cabinet is equipped with a Model 18 Savage mercury compressor which uses methyl chloride as the refrigerant to cool the patented jelly-freezing mixture in the cooling coil.

Roi B. Woolley, Weston Vogel and W. L. Dodd are in charge of the exhibit.

## G. E. FEATURING NEW ALL STEEL MODELS IN LARGE EXHIBIT

All steel electric refrigerators are being featured in the large and beautiful exhibit of the electric refrigeration department of the General Electric Co., Cleveland, Ohio. A nickel-plated apartment house model G 40 set on a revolving platform and in a background of modernistic design emphasizes the all steel idea.

Eleven models are shown in the domestic line, and these have capacities ranging from 4 to nearly 18 cu. ft. In the commercial division three cabinets are on display. Two water coolers, of bottle and pressure types, are also included.

The oiling system of the unit on the top is being manifested to visitors by means of a unit which is operating in a glass-enclosed case. A nickel-plated unit also shows the interior of the casing.

Sales promotion literature is well displayed in a booth near one corner of the exhibit. This includes literature for special campaigns, publications, dealer helps, newspaper and national magazine advertising and a central station handbook.

Representatives of the electric refrigeration department who are attending the exhibition and convention include T. K. Quinn, P. B. Zimmerman, W. J. Daily, J. J. Donovan, W. E. Landmesser, M. F. Mahoney, John Kumler, H. H. Bosworth, J. T. Dickson, A. C. Mayer, M. T. Bard, W. H. Timmerman, Frank Corliss, John Kubick, George Miller, W. E. Driscoll, C. H. Steenstrup, J. J. Walker, A. R. Stevenson, Jr., and J. L. Knight.

## MONEL METAL USES SHOWN IN EXHIBIT

The uses of Monel metal in the electrical and refrigeration industries are shown in the varied display of the International Nickel Co., New York, N. Y. Companies using Monel metal in the refrigeration industry for trim are Frigidaire, General Electric, Dry-Kold, Kelvinator, Jewett, McCray, Savage Arms and Seeger.

Samples of Monel metal used on cabinets are displayed on a table near one side of the booth.

International Nickel is represented by R. E. Mason, L. R. Larson and F. A. Sansam.

## NEW DEVELOPMENTS IN MOTORS DEPICTED AT WAGNER DISPLAY

The development of electric refrigeration motors in the past four years is adequately described in the exhibit of the Wagner Electric Corp., St. Louis, Mo. Four motors are mounted on a stand near the front of the booth. These motors represent the development during the 1926-1929 period.

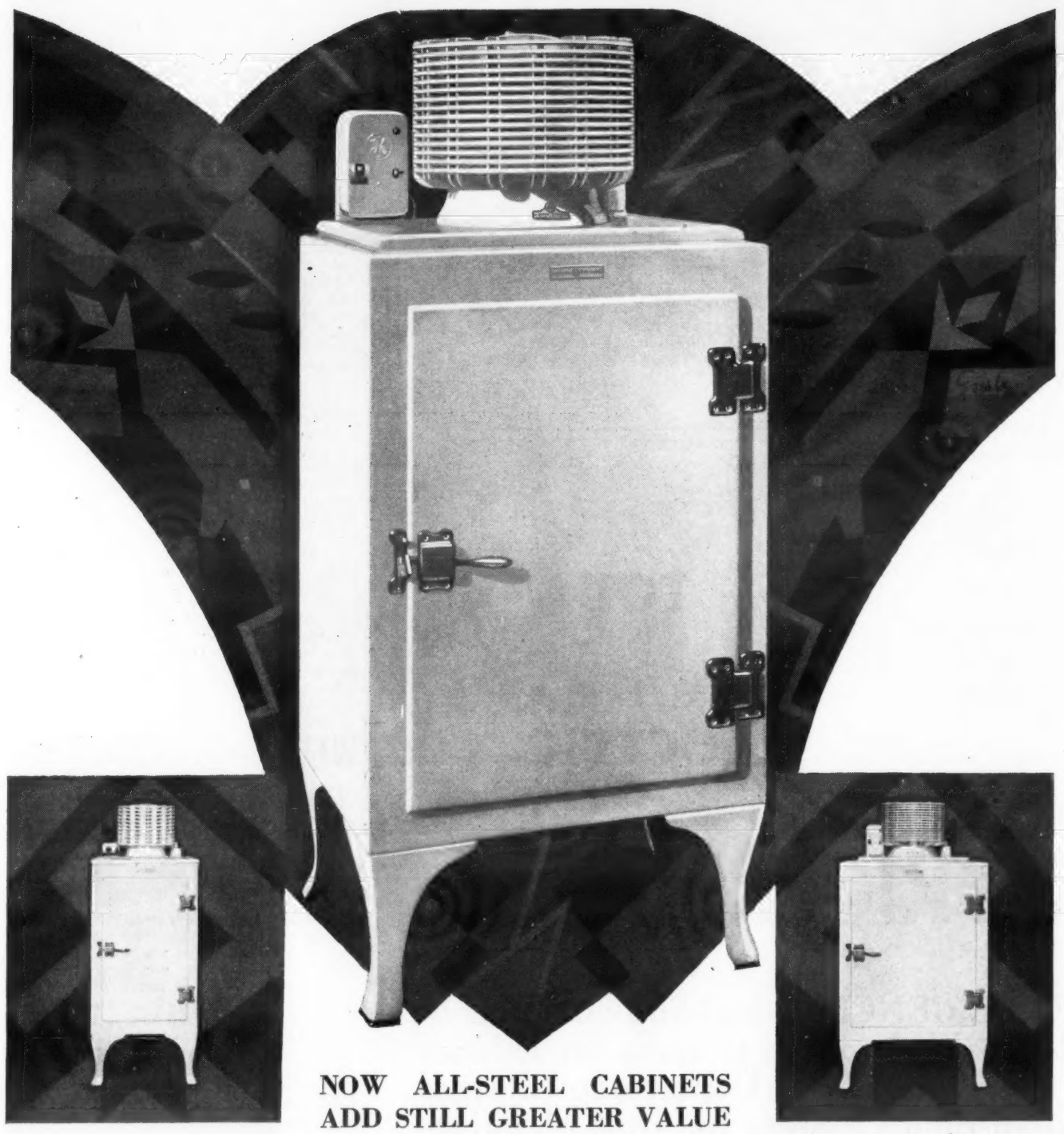
The motors are timed and as soon as one stops the next motor starts. Each motor represents one of the years during the development stage. One is the new Wagner rubber-mounted motor which cuts starting and stopping noise down to a minimum. The starting and stopping periods in other three motors are quite distinguishable.

Wagner representatives attending the convention are P. B. Postlethwaite, E. H. Cheney, E. W. Goldsmith, A. E. Herzberg, Elmer Lingard, Brooks Flaxon, R. L. Wells, H. Keath, H. N. Felton, R. W. Piper and B. S. Woodman.

# OF THE 250,000 OWNERS

## of GENERAL ELECTRIC REFRIGERATORS

## not one has spent a single dollar for repairs or service



**NOW ALL-STEEL CABINETS ADD STILL GREATER VALUE**

## This performance is beyond comparison

When the General Electric Refrigerator was first announced two years ago, the confidence of Electric Light and Power Companies in electric refrigeration was at a low ebb. This is not the case today. Their confidence has been completely restored.

Nothing has contributed more to bring about this changed viewpoint than the performance of the General Electric Refrigerator. At first the public accepted it on faith—faith in the skill of the engineers and scientists of the General Electric Research Laboratories who labored 15 long years to perfect it. The first owners soon found their faith was justified. Now a quarter of a million homes have General Electric Refrigerators. The majority of present users have had their refrigerators less than two years and, therefore, are protected and for them the two-year Service Guarantee still applies. However, many thousands have had their General Electric refrigerators for more than two years and no service or repair charge has been made against them.

So far not one owner has had to pay a single dollar for repairs or service. That was our guarantee to them—a guarantee that was offered as evidence of our confidence in the product. Such a guarantee could never have been offered—and lived up to—**if the design of the refrigerator itself had not been right.**

Light and Power Companies throughout the country know how well the General Electric Refrigerators on their lines are performing. They know how their patrons like them. They know their worth as **profitable** lead builders, and as good-will builders, too.

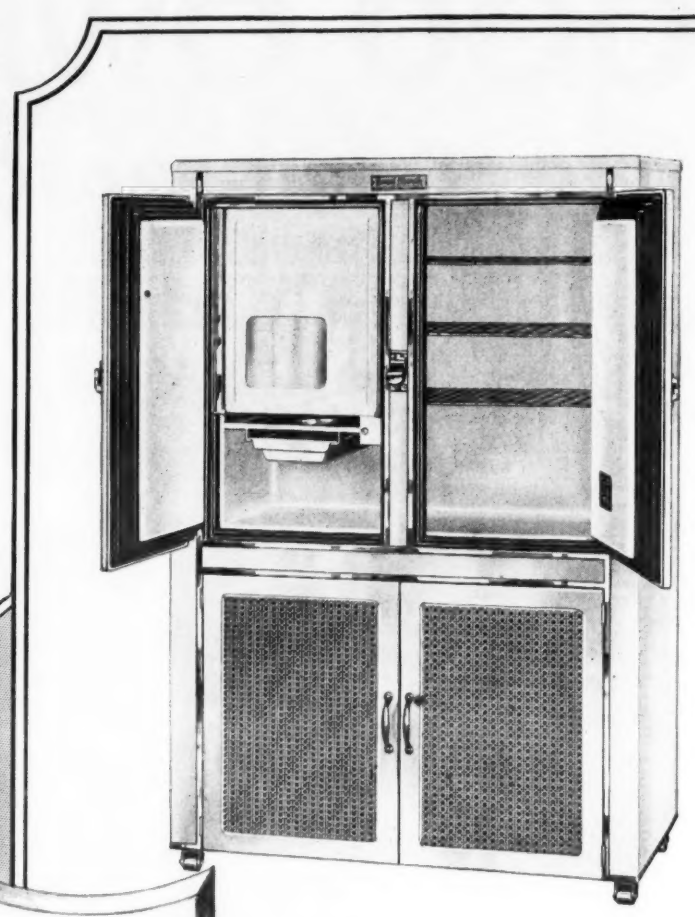
We urge you to talk with these men at Atlantic City and get their views. We will be happy to see you at Exhibit 628.

***We endorse the National Food Preservation Program initiated by the Refrigeration Committee of the National Electric Light Association***

**GENERAL ELECTRIC**

**ALL-STEEL REFRIGERATOR**

**22 Models, every one as modern as tomorrow, on display at Atlantic City.**



LEONARD Refrigerator Cabinets for Electric REFRIGERATION

**48 YEARS' EXPERIENCE in building quality cabinets should qualify Leonard to make the cabinet for your electric unit. A special Department designs and produces Custom-Built Cabinets for Unit Manufacturers. Write us for suggestions and quotations. No obligation.**

**Spaces 162, 164, 166**
**at the N. E. L. A. CONVENTION**
**Municipal Auditorium, Atlantic City**
**June 3rd to 7th**

**The largest refrigerator plant in the world will give you service and delivery.**

**LEONARD REFRIGERATOR CO.**
**GRAND RAPIDS, MICHIGAN**

**WE ENDORSE and subscribe to the National Food Preservation Program initiated by the Refrigeration Committee of THE NATIONAL ELECTRIC LIGHT ASSOCIATION.**


# N. E. L. A. EXHIBITS
(CONTINUED)

## SERVEL PRESENTING ELECTRIC ABSORPTION TYPE REFRIGERATOR

Servel, Inc., Evansville, Ind., has a large showing of Servel and Electrolux units in its booth near the far end of the exhibit hall. Four domestic Servel and four domestic Electrolux units comprise the household line. Two compression type cabinets are finished in crystal green while the other two have duo-tone finishes. Food storage capacities in these cabinets range from 5 to 10 cu. ft. Along-side the Servel domestic line is a water cooler with a special compartment for cooling bottled beverages. This model is known as the WB type cooler.

In the rear of the booth are a number of commercial applications. A 48 cu. ft. all porcelain Seeger refrigerator is equipped with a 50AW Servel unit and the new type flooded low side coils. A large florist case is cooled by a 50A Servel unit. An all porcelain McCray display case refrigerated by a 30AW Servel unit is also shown. Filtrine model 1A also featured has a 24A Servel unit.

Four models make up the Electrolux line on display and these include the two new models, the New Yorker and EL-10A. These four models are electrically operated. The refrigeration cycle being actuated by heat furnished by electricity instead of gas.

Of special interest is the Victor milk cooling cabinet which is refrigerated by a Servel unit.

H. W. Foulds, vice president in charge of sales, heads the Servel party which is comprised of the following: V. E. Vining, George Roach, C. A. Miller, E. H. Culver, Mark B. Rowe, B. O. Brown, P. J. Griffin, W. A. Mahoney, J. A. Janney, F. Combier, W. D. Taylor, Maclean Hoggson, E. A. Dunham and F. H. Parker. H. A. Vaughn, of Los Angeles, is also attending the exhibition. He was the winner of a trip to Atlantic City—awarded to a Servel sales representative for best performance based on percentage of quota sales during the month of May.

## WELSBACH COMPANY HAS SUPER FREEZER COMMERCIAL SYSTEM

Welsbach Co., Gloucester City, N. J., for the first time is showing its dry gas system as applied to multiple installation. Seven cabinets are shown in the domestic line, one of which is finished in jade green.

At the center of the booth the Welsbach super freezer commercial system which was introduced several months ago is on display. This system embodies self-defrosting characteristics that eliminate many disadvantages associated with electric refrigeration through the dehydration of meats and other food products. This super freezer is showr in an Oreole case made by Ottenheimer Bros. and also in a large commercial Seeger refrigerator. A small super freezer is enclosed in a glass case and cooled by a Welsbach unit. This demonstration model is located near the entrance to the exhibit.

R. R. Thompson, general sales manager, and W. R. M. Very, sales promotion manager, are in charge of the display.

## FRIGIDAIRE HAS LARGE ARRAY OF DOMESTIC & COMMERCIAL UNITS

The millionth Frigidaire unit is the center of attraction in the large exhibit of the Frigidaire Corp., Dayton, Ohio This unit is being shown at the N. E L. A. exhibit because of its interest to public utility men. Frigidaire officials estimate that their units in operation use 400,000 kilowatts of current annually.

Seventeen models comprise the household line on display. The cabinets have food storage capacities from 4 to 18 cubic feet and are finished in Duco with two-toned porcelain. All models have porcelain interiors. The room cooler which was recently added to the Frigidaire line is also attracting considerable attention.

Among the new products featured by Frigidaire is the automatic temperature regulating valve which enables a single compressor to handle several cabinets or coolers requiring various temperatures.

In the domestic line compressors, models A and EE are shown, while in the commercial line compressors C, D, N, O and K are exhibited. Two bottle type water coolers refrigerated by a model D unit provide visitors with cool, refreshing drinks. Several fin types of evaporators and a water cooling coil are included in the display. The cold control, which facilitates freezing of desserts and ice cubes in Frigidaires, is exhibited in the front section of the display.

Members of the Frigidaire organization who are in attendance at the booth are: J. A. Harlan, R. F. Calloway, Lester H. Keilholtz, T. B. Fordham, E. A. Doty, W. R. Winans, J. K. Knighton, J. P. Galloway, George J. Jones, Jr., J. T. Coventry, J. H. Knight, J. T. Borland, T. G. Supplee, A. A. Jones, Frank Cotton, H. H. Kennedy, J. B. Reeves and H. D. Wehrly.

## VARIETY OF CABINETS DISPLAYED IN LARGE EXHIBIT BY SEEGER

Domestic and commercial cabinets are attractively displayed in the large exhibition space of the Seeger Refrigerator Co., St. Paul, Minn. Porcelain and lacquer finished cabinets are among those on exhibition. Fifteen domestic cabinets make up the Seeger showing on the flanks. These boxes have capacities from 4 to 16 cu. ft.

At the rear of the booth there are four large commercial refrigerators. These have capacities from 20 to 75 cu. ft. Vegetable compartments are featured in a number of the domestic cabinets. Seeger cabinets are also being shown at the Copeland, General Electric, Kelvinator, Servel and Welsbach displays. On a small table hardware used on the Seeger line is exhibited. Chromium plated hardware is being used effectively on many Seeger models. This hardware has both dull and satin finish.

Seeger refrigerators are being used at the present time by the manufacturers of the Absopure, Copeland, Electro-Kold, Electrolux, Frigidaire, General Electric, Ice-O-Matic, Kelvinator, Liberty, Merchant & Evans, Norge, Wayne, Welsbach and Zerozone electric refrigerators.

Those in attendance at the Seeger booth are Walter G. Seeger, John J. Leonard, C. A. Muessel, A. R. Johnston, George Mcleer and Gordon Wooten.

## LEONARD DISPLAYING BOTH PORCELAIN AND STEELCLAD MODELS

The Leonard Refrigerator Co., Grand Rapids, Mich., is including a large number of domestic cabinets in its convention display. Leonard steelclad and all porcelain refrigerators are being featured. The Steelclad line has twelve models with capacities from 4 to 10 cu. ft. Eight all-porcelain models have food capacities from 7 to 25 cu. ft.

Five models are finished in two-tone gray and white. The Steelclad line is finished in duco over Parkerized rust-proof steel. Two large commercial boxes with oak finishes are also on display. Six refrigerators are designed for apartment house installation.

This display also has nine refrigerators for ice refrigeration. Leonard men in charge of the booth are A. M. Jaeger, W. A. Bowen, Richard Fassnacht and Paul Puffer.

## ELECTRICAL TESTING LABORATORIES HAS INTERESTING EXHIBIT

Methods used by the Electric Testing Laboratories, New York, N. Y., in testing appliances are being featured in its effective display, located near the main entrance to the auditorium. Here they have numerous devices in operation, which test the durability of electric cords, appliance plugs and attachment plugs.

This company has tested a number of electric refrigeration motors and has two large refrigerator test rooms in its New York laboratories. They offer a complete testing service to both utility companies and manufacturers of electric refrigerators. H. H. Millar, H. C. Koenig and Charles Row are explaining the operations of the various test machines at the exhibit.

# Electrolux *Wins*

## THROUGH THESE

# 5 *inherent*—

## ADVANTAGES

No one in the industry can miss the overwhelming public interest in Electrolux today. Nor can anyone who knows the facts mistake the significance of its steady increase in sales, setting new records one day, breaking them the next.

No temporary condition is responsible for this constant preference. It's deeper than that. Electrolux has, by virtue of its unique principle and design, five *inherent* advantages that give the Electrolux dealer powerful extra support in making every sale.

### Visit Booth 165-169

**at National Electric Light Association Convention**
**Atlantic City, May 30**

Electrolux is now on exhibit at Booth 165 of the National Electric Light Association Convention. Drop in and see the new model EL-10A and find out how Electrolux is taking new progressive steps to help their dealers.

### 1 The only absolutely noiseless refrigerator

One of the first questions every prospect asks is "How much noise does it make?" Electrolux dealers can answer quickly and positively, "Absolutely none." A big initial advantage in putting the customer in a receptive frame of mind.

### 2 Complete freedom from machinery troubles

No woman wants to be a mechanic. And she never has to be with an Electrolux. For there are no moving parts, nothing to get out of order and interrupt service. You can't have machinery trouble when there isn't any machinery. Another worry erased from the prospect's mind.

### 3 No possibility of repair bills

Any prospect balks at the possibility of repairs and replacements at frequent or even infrequent intervals. That's why Electrolux one-piece hermetically sealed construction is such good news.

### 4 Low-cost gas operation

"How much does it cost to run?" is another sure prospect question. And Electrolux costs so ridiculously little, owing to the use of the tiny inexpensive gas flame, that you don't have to use any long argument to settle that point.

### 5 Unlimited life "as is"

"How long will it last?" is never an unwelcome question to Electrolux dealers. For the totally different principle of construction, without moving parts, with all the chilling unit made in one sealed piece, eliminates any wear and tear due to time. No one has yet found a reason why Electrolux should ever wear out. Nor is there the slightest possibility of its becoming noisy as the years go by.

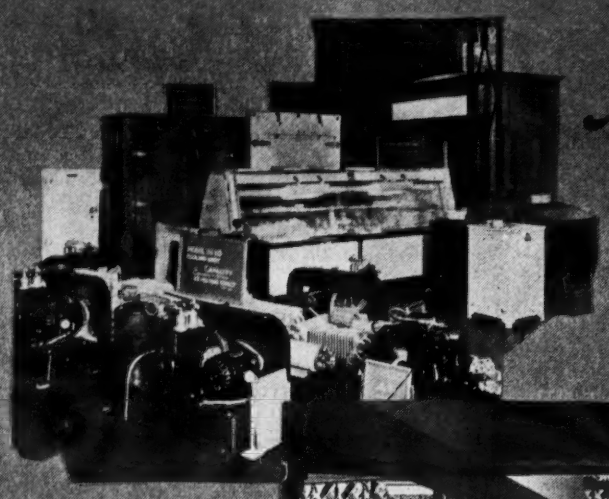
### *Where Franchise Is Open*

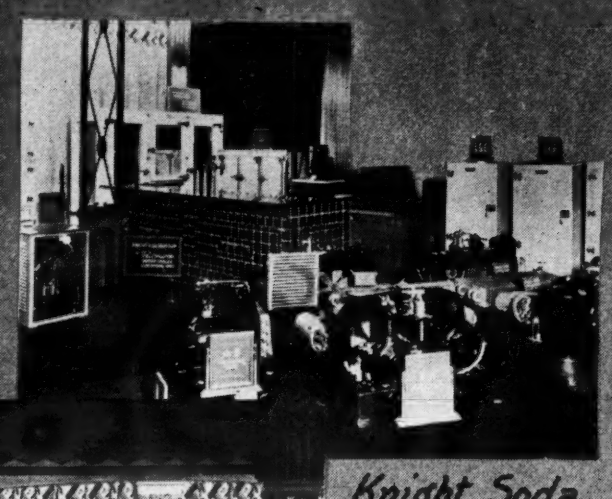
*In certain territories, Electrolux dealer franchises are open at present. If you are in a position to take on this full-profit line, or soon will be, write or wire today to Servel Sales, Inc., Evansville, Indiana.*

# ELECTROLUX THE GAS REFRIGERATOR

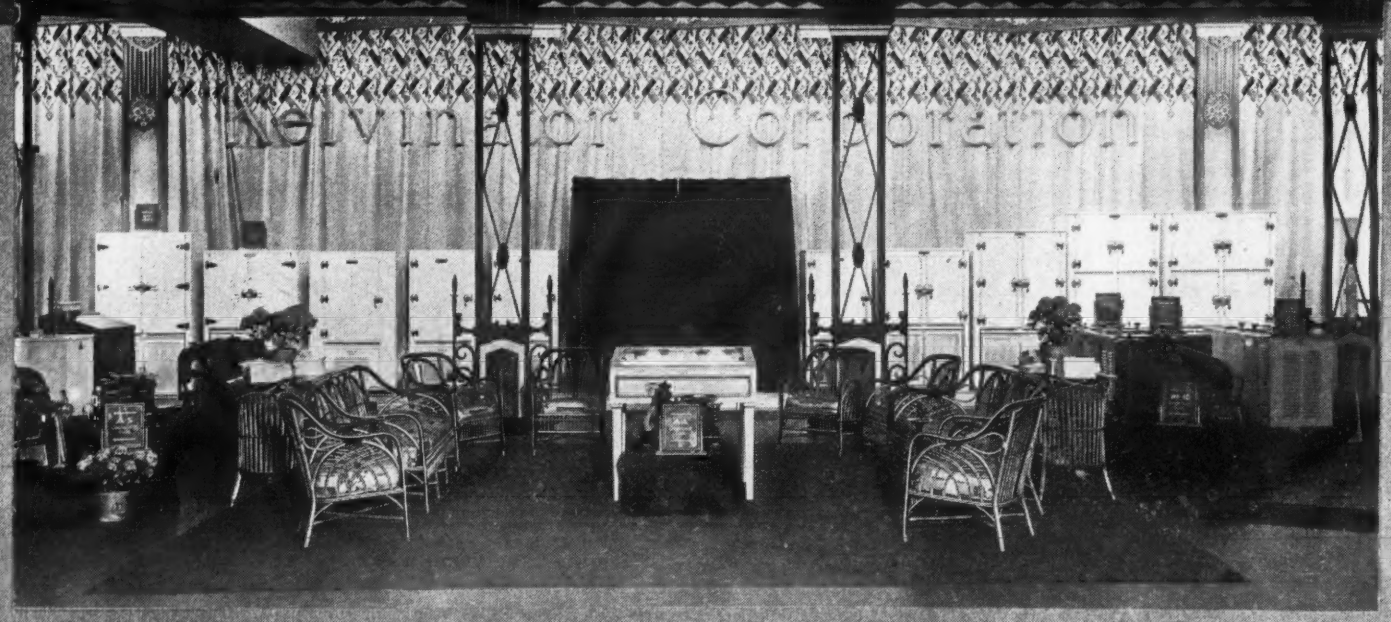
MADE BY SERVEL

# N-E-L-A-CONVENTION
## ATLANTIC CITY
## JUNE 3-7-1929



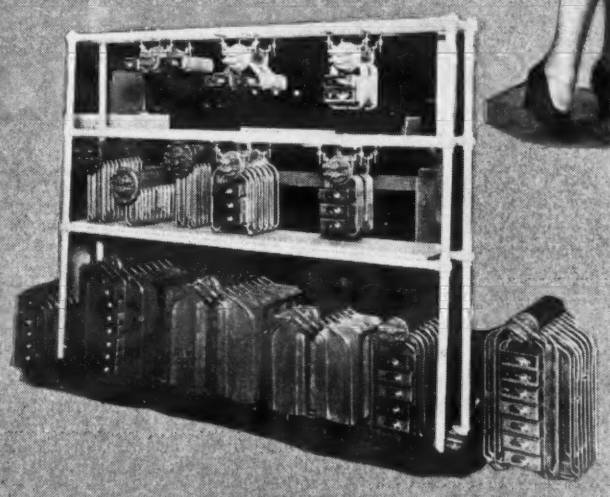


Commercial Units

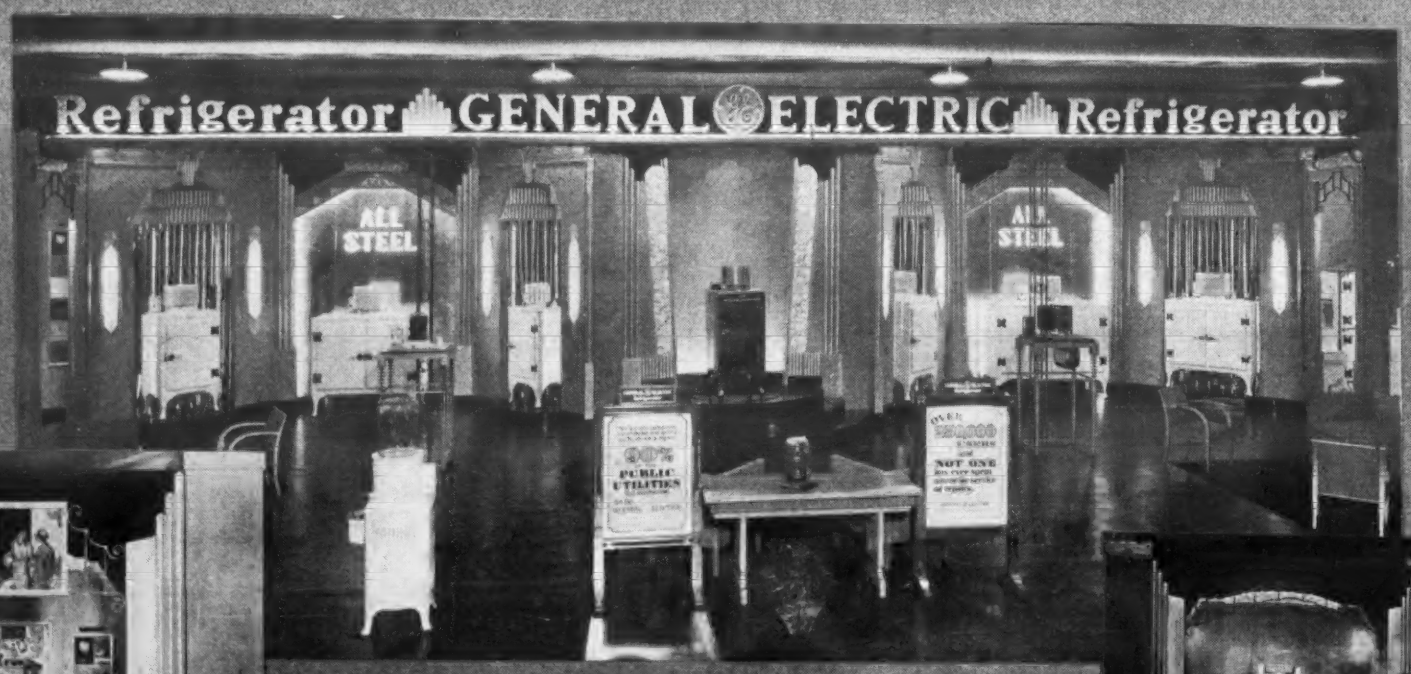



Knight Soda Fountain.

KELVINATOR CORPORATION

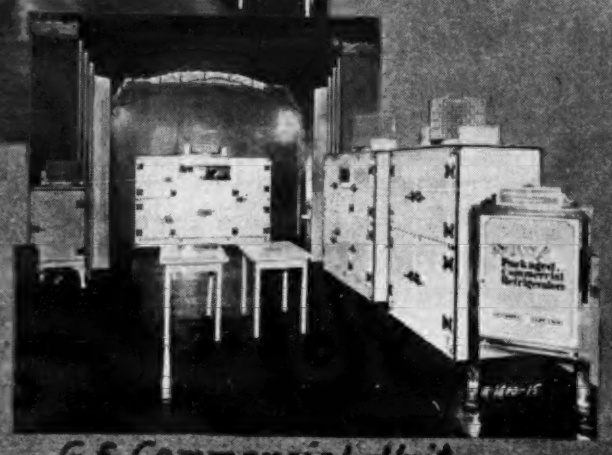


COPELAND SALES CO.

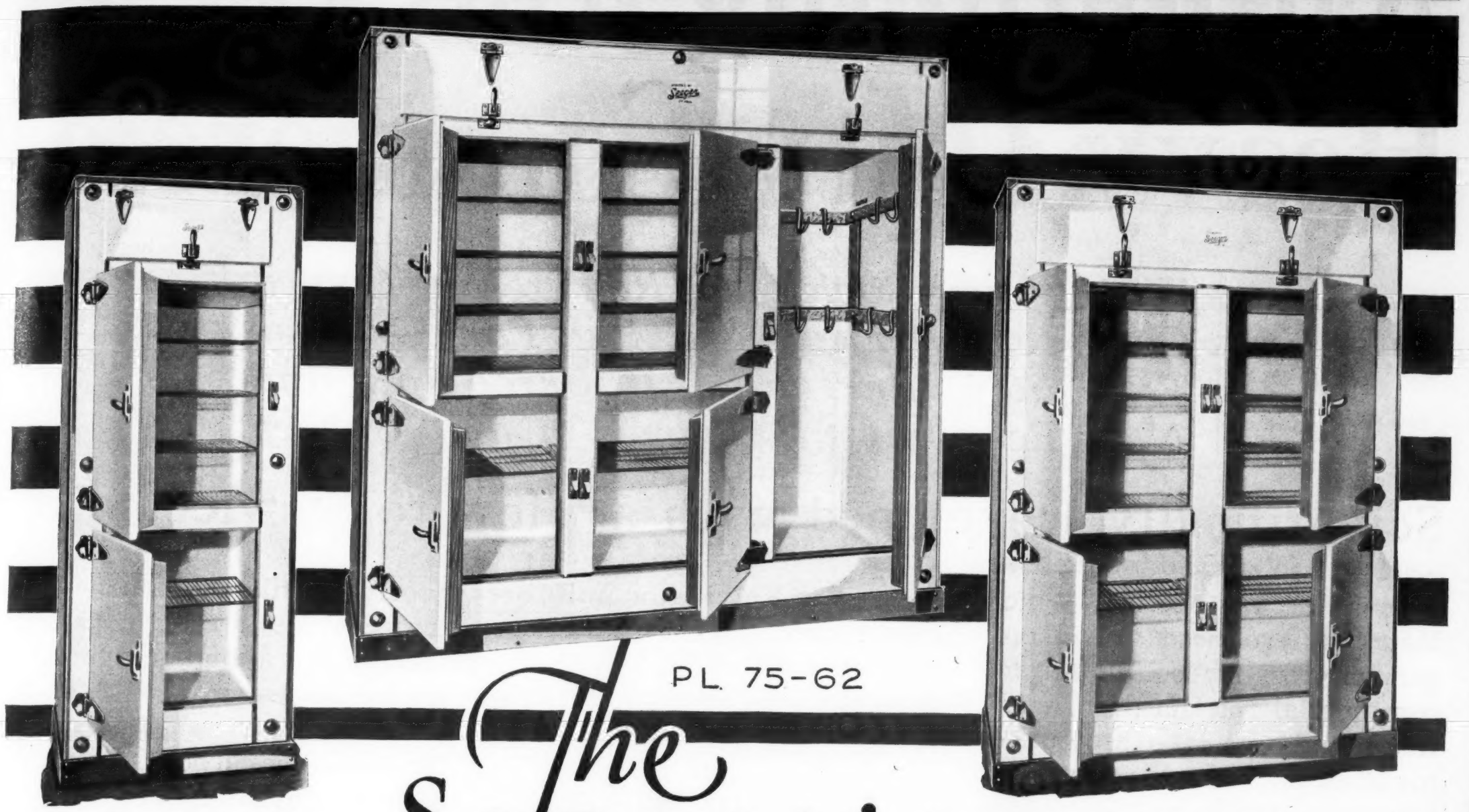



GENERAL ELECTRIC CO.

Sales Promotion Booth.



G.E. Commercial Units.



PH 22-18

PL. 75-62

PH 48-40

# The Sensation of the N·E·L·A·

## COMMERCIAL REFRIGERATION

*The most advanced line of Commercial Cabinets by*

**Seeger**

SAINT PAUL

# Announcing the NEW Heavy Duty Commercial

***With Water-Cooled and Refrigerant-Cooled Compressor Heads Giving Far Greater Efficiency, Perfected Lubrication and New Economy of Operation and Upkeep***

## Scientifically Developed with a View to Serviceability

Kelvinator engineering, which last year produced the incomparable cross-fin cooling unit for commercial refrigeration, again triumphs with the announcement of six new heavy duty commercial refrigerating machines now in production.

Designed to meet the special problems imposed by commercial refrigeration, the new Kelvinator Heavy Duty line achieves a new high plane of efficiency---both in the perfection of cooling and lubrication, and by providing far longer life and quiet operation.

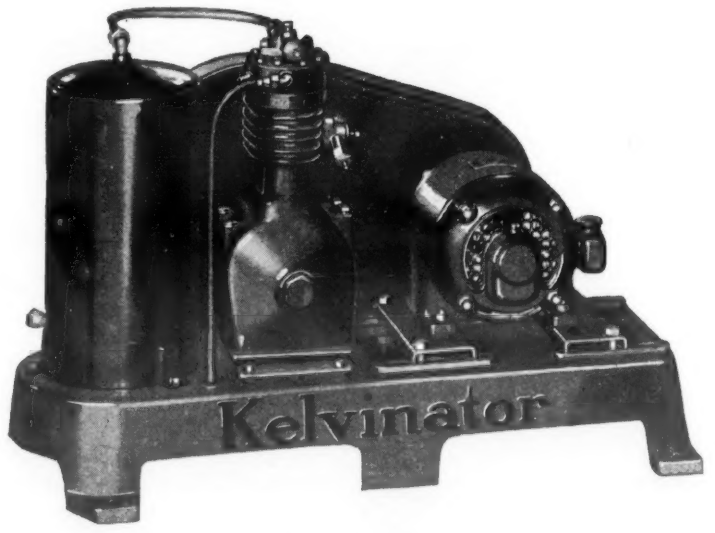
Ruggedly built, with heavy cast iron base to eliminate vibration.

these new Kelvinator units are constructed to give uninterrupted low-cost service with the necessity for service reduced to the absolute minimum.

### Larger Size Machines

***Available in Both Water-Cooled and Refrigerant-Cooled Types***

Kelvinator Heavy Duty Commercial Refrigerating Machines in the larger sizes are built with both water-cooled and refrigerant-cooled compressor heads to handle heavy refrigeration loads.




**Model WR-40**

*1 H. P. water-cooled unit with water-cooled compressor head. Specially designed to meet needs of large commercial installations such as cold rooms, walk-in refrigerators and multiple apartment house installation.*

Kelvinator engineers have utilized two methods in overcoming oil decomposition. On the water-cooled units, the condensing water is passed through the head of the compressor.

### Refrigerant Cooled Compressor Head

**ADVANTAGES**

1. **Cooling the head of the compressor by means of a secondary air cooled condenser, prevents the decomposition of the oil in the compressor and allows a large compressor to be used successfully with air cooling.**
2. **Eliminates carbon formation in the system.**
3. **Increases the life of the compressor by allowing better lubrication.**
4. **Decreases oil pumping.**
5. **The capacity of the compressor is materially increased.**
6. **The motor wattage is decreased.**
7. **Lowers the discharge pressure.**
8. **Increases the efficiency of the compressor with no additional operating expense.**
9. **Less service required.**

Cooling the head of a large compressor lowers the temperature of the compressor head and discharge gases, prevents decomposition of the oil, and increases the refrigerating capacity of the compressor.

Experience shows that a large compressor becomes much warmer than a smaller compressor, especially when installed in poorly ventilated rooms where temperatures are high. Continued running at high temperature results in decomposition of the lubricating oil which deposits carbon. This carbon is the cause of considerable mechanical trouble requiring frequent servicing of the unit.

A large quantity of heat is thus removed by the cooling water because of the large temperature difference between the compressor head and the outlet water. Thus the danger point of oil decomposition is never reached, better lubrication is obtained and higher refrigeration efficiency secured.

Cooling of the larger air-cooled

# KELVINATOR line of Refrigerating Machines

## Water Cooled Compressor Head

### ADVANTAGES

1. **Condensing water used in cooling the compressor head reduces head temperature and eliminates the decomposition of oil in the compressor.**
2. **Eliminates carbon formation in the system.**
3. **Increases the life of the compressor by allowing better lubrication.**
4. **Decreases oil pumping.**
5. **The capacity of the compressor is increased.**
6. **The motor wattage is decreased.**
7. **Increases the efficiency of the compressor with no additional operating expense.**
8. **Less condensing water required for compressor of given capacity.**

compressor models has been obtained by a revolutionary but simple method. The compressor head, which is charged with a refrigerant, is connected to a secondary condenser. When the head becomes warm, the refrigerant evaporates and the gas passes out of the head into the air-cooled secondary condenser. It is condensed here and the liquid returns to the head, where the process is repeated. The compressor is thus cooled below the decomposition temperature of the oil, resulting in higher capacity, higher efficiency and better lubrication.

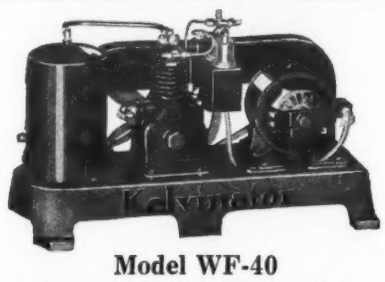
***Tested and Proved to be the Most Efficient Types for Commercial Use***

Kelvinator Heavy Duty Commercial Refrigerating Machines have been under test for many months in actual use, and the results in smooth, trouble-free performance have been highly gratifying.

To dealers in electric refrigeration, this new line means a broader avenue of sales and consistent profits, embracing as it does the entire field of commercial refrigeration.

**Model F-30**

*½ H. P. air-cooled unit, adaptable to large commercial installations, including display and freezer counters, refrigerators, etc.*



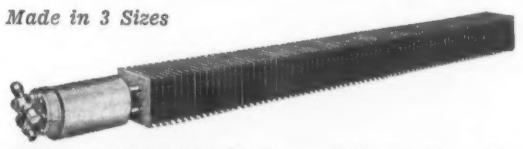

**Model WF-40**

*½ H. P. water-cooled unit, meets requirements of refrigerators generally used in markets, restaurants, florists, and soda fountains and stores.*

**Model R-30**

*1 H. P. air-cooled unit, with refrigerant-cooled compressor head. High capacity unit for all types of large commercial requirements, including apartment house multiples.*

*Made in 3 Sizes*

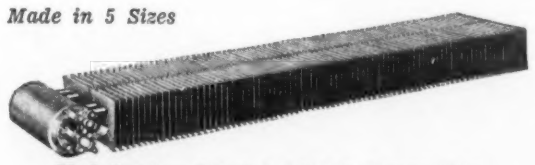


**Kelvinator Model 72X Cross-Fin Cooling Unit**

**For Display Cases**

*Dimensions: 6½" wide—72¼" long—5½" high*

*Made in 5 Sizes*



**Kelvinator Model 66XD Cross-Fin Cooling Unit**

**For Large Commercial Refrigerators**

**CAPACITY EQUIVALENT TO 70 TONS ICE MELTING EFFECT per year**

*Dimensions: 16½" wide—65⅝" long—5½" high*

*Upon request, we will gladly forward literature describing the new Kelvinator Heavy Duty Line and the complete 1929-30 line of Kelvinator Commercial Refrigerating Equipment.*

## Vertical vs. Horizontal Receiver

**The Vertical Receiver Has the Following Advantages Over the Horizontal Receiver—**

1. **Greater effective capacity for a given space occupied.**
2. **Non-condensable gases are easily purged from receiver.**
3. **Non-condensable gases in the system have less tendency to increase the discharge pressure.**
4. **Liquid refrigerant charge not as critical.**
5. **Sufficient receiver capacity so that a larger number of evaporators may be "pumped down" directly into the receiver.**
6. **Less danger of dirt that may settle in the receiver flowing into the liquid line.**
7. **Water coil for water cooled units are self-draining.**
8. **More easily serviced.**

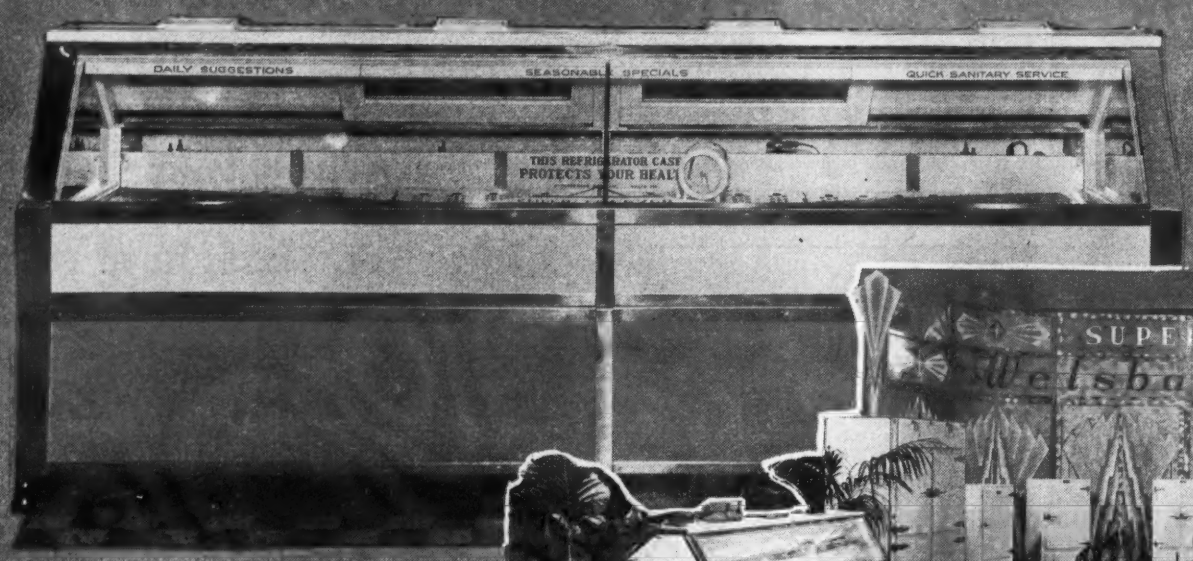
# KELVINATOR CORPORATION

**DETROIT, MICHIGAN**

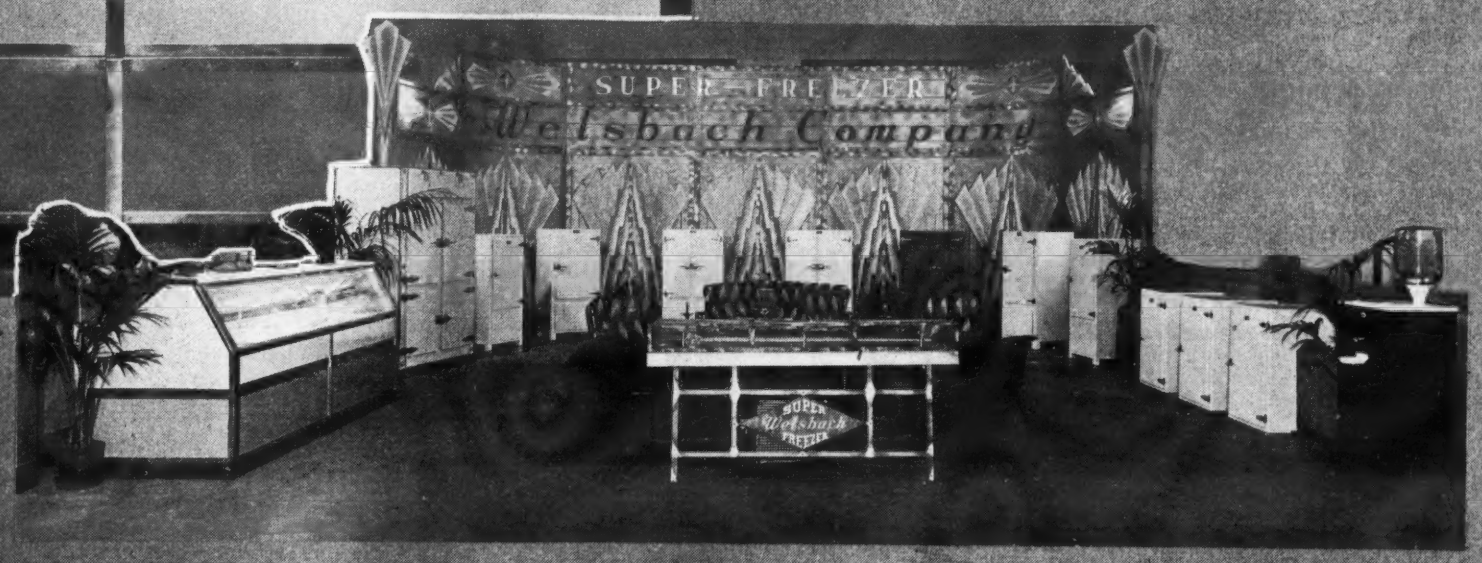
# N.E.L.A. CONVENTION ATLANTIC CITY JUNE 3-7-1929

SERVEL, INC.

New Servel Milk Cooler




Display Case by Ottenheimer




WELSBACH COMPANY

The Cold Control

FRIGIDAIRE CORPORATION

Commercial Units

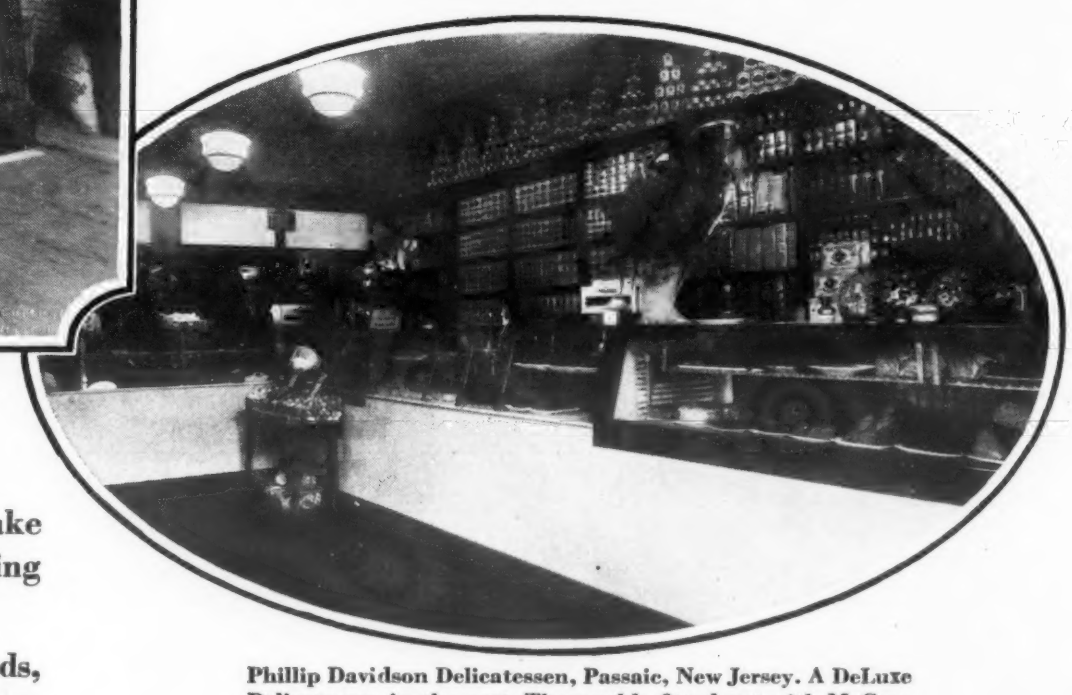
# For MODERN Food Stores

Friedrich's Delicatessen Store, Milwaukee, Wisconsin. This photograph, with a McCray Top Counter in prominence, shows how well McCray equipment is adapted to use in the delicatessen store.

## McCRAY
## REFRIGERATOR EQUIPMENT
## *For Machines of Any Type*

H. & S. Market, Detroit, Michigan. A very attractive display of meats made possible by three McCray Refrigerator Counters in this up-to-date Detroit market.

Hyman Chester Market, Washington, D. C. A prosperous store in the capitol city. Mr. Chester gives much credit for his good business to McCray equipment.



Phillip Davidson Delicatessen, Passaic, New Jersey. A DeLuxe Delicatessen in the east. Thoroughly fitted out with McCray refrigerators and show cases.

**USING the basic principle of attractive display to make more sales, the modern food merchants are building bigger and more profitable business.**

**Out of 40 years of close contact with food merchants' needs, McCray has provided the finest and most efficient refrigerators and refrigerator display cases in a series of styles and sizes suited to food stores, large and small.**

**Pictured here are a few recent typical installations of McCray equipment. In food stores throughout the country you will find McCray. The very nameplate has come to be recognized as the sterling mark on a commercial refrigerator.**

***Machine Refrigeration of Any Type May Be Used In All McCray Models.*** **The quality built into every hidden detail of McCray construction insures efficient, economical service—enables the machine to do its best work! Pure corkboard insulation sealed with hydrolene is used in all McCrays. No changes are required for machine installation.**

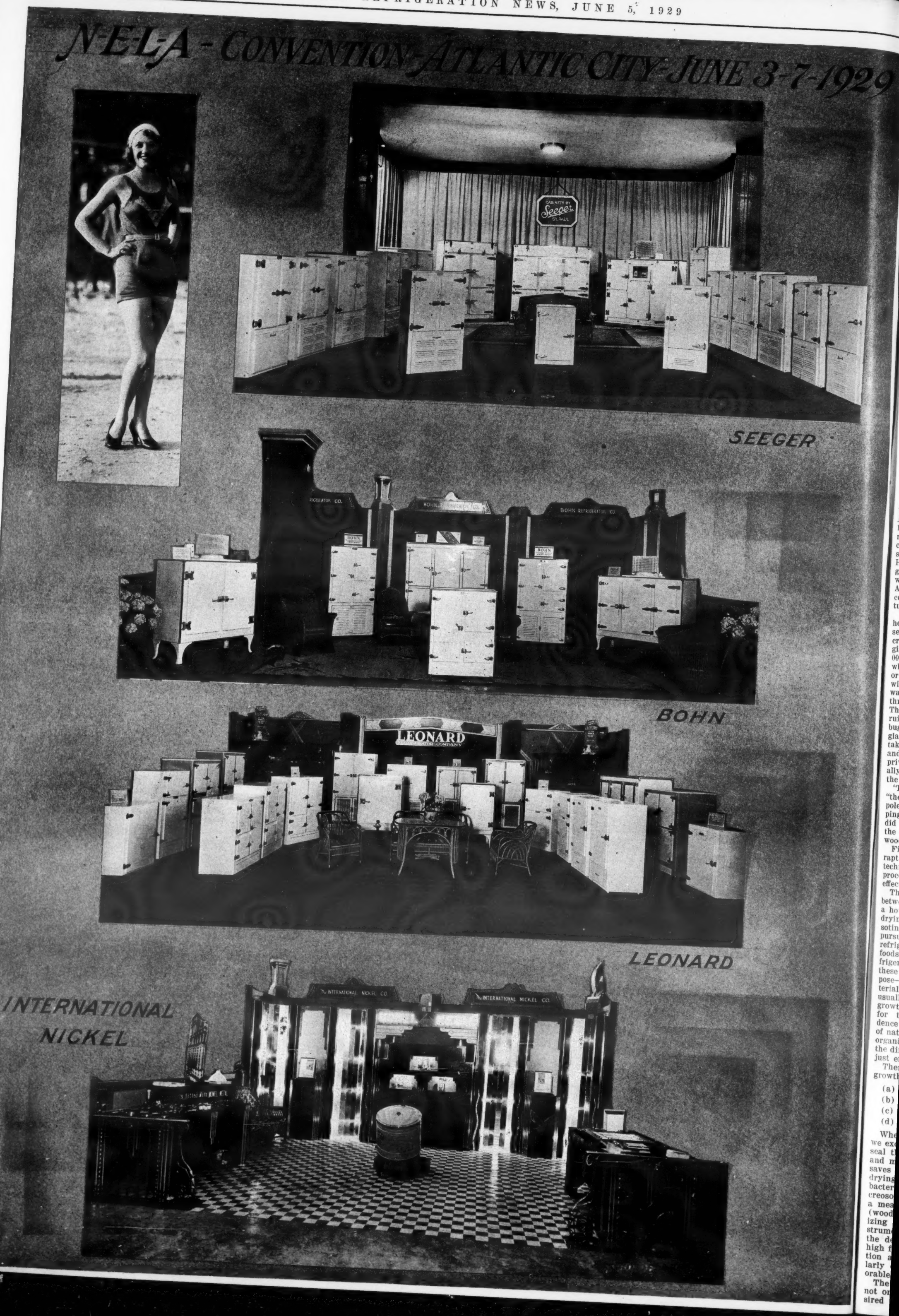
**McCray is the world's largest builder of refrigerators for all purposes — in food stores, markets, hotels, restaurants, clubs, hospitals, institutions, florist shops and homes.**

**Dealers in mechanical refrigeration are invited to write for information regarding the McCray line. No obligation.**

**McCRAY REFRIGERATOR SALES CORPORATION**
**Dept. 66, Kendallville, Indiana**
**Salesrooms in All Principal Cities *{See Telephone Directory}***

WORLD'S LARGEST MANUFACTURER OF REFRIGERATORS FOR ALL PURPOSES

# McCRAY REFRIGERATORS


N-E-L-A - CONVENTION - ATLANTIC CITY - JUNE 3-7-1929
CABINETS BY Seeger ST. PAUL
SEEGER
BOHN REFRIGERATOR CO.
BOHN
LEONARD
LEONARD
INTERNATIONAL NICKEL
The INTERNATIONAL NICKEL CO.
The INTERNATIONAL NICKEL CO.

# Lieut. John Macready Delivers Millionth Frigidaire

Lieut. John A. Macready, one-time holder of three world's aviation records, now in the Engineering Dept. of the Frigidaire Corp., pilots a Fokker plane from Dayton to Atlantic City bearing the millionth Frigidaire.

# *Painting, Creosoting, Canning, Drying, Refrigerating—All Accomplish Same Purpose—to Exclude Bacteria*

FROM creosoted poles to electric refrigeration seems like a far cry, but Wm. R. M. Very, sales promotion manager of the Welsbach Co., Gloucester, N. J., pointed out the relationship between the two during dinner at Hackney's, where Atlantic City visitors go to enjoy seafood. Looking out the window across the boardwalk, was the Atlantic. A boat glided by and so the conversation of the party naturally turned to ships and the sea.

"A sea captain once gave me a tip on how to save money in chartering a vessel," said Mr. Very. "I was shipping creosoted lumber from Savannah, Georgia, and the cost would run perhaps $8,000 a trip. The tip was to find a boat which had been in salt water for a year or two. In that case it would be infested with the kind of worm which eats its way the length of a board (rather than through it from one side to the other). This parasite will in time, of course, ruin the ship. Fresh water kills the bug, however, so the ship's master is glad to have a consignment which will take it into fresh water for a few weeks and will offer a reduced rate for the privilege. By this method he automatically 'de-worms' the hull and preserves the life of his craft.

"For that matter," continued Mr. Very, "the one business of creosoting lumber, poles and piling was simply one of stopping bacterial growth. In that case we did so by poisoning the food supply of the organisms which cause the decay of wood."

Finding his audience in a state of rapt attention, Mr. Very became more technical and explained preservation processes in general in words to this effect:

There may seem to be no relationships between preserving peaches and painting a house, or boiling nursing bottles and drying fish, or canning peas and creosoting electric light poles. Nor do these pursuits seem closely related to icing a refrigerator car or the safeguarding of foodstuffs in an electric household refrigerator. Yet, each and every one of these things accomplishes the same purpose—eliminating or controlling bacterial growth. Disease and decay are usually the direct result of bacterial growth. Decay is merely another name for the chemical and physical evidence of bacterial activity. The control of natural increase of bacteria or microorganisms is the primary purpose and the direct result of each of the activities just ennumerated.

There are four essentials to the growth of bacteria:

(a) Air.
(b) Moisture.
(c) Food.
(d) Favorable temperature.

When we preserve peaches or can peas we exclude air. In painting a house we seal the pores of the wood against air and moisture (and "saving the surface saves all"). By dehydrating fruit and drying fish the moisture essential to bacterial growth is eliminated. The creosoting of poles and piling is merely a means of poisoning the food supply (wood tissues) by carbolic acid. Sterilizing nursing bottles and surgical instruments destroys bacteria through the development of a temperature too high for their life processes. Refrigeration arrests bacterial growth by similarly deviating from temperatures favorable to rapid propagation.

The household electric refrigerator not only automatically maintains a desired temperature but offers an added safeguard through the elimination of excessive moisture from the air in the food compartment.

# KULAIR OFFERING COMPLETE LINE OF CONDENSING UNITS

The Kulair Corp., Philadelphia, has an extensive display of electric refrigeration products. It includes a complete line of Kulair condensing and freezing units.

Seven of the condensing units are air cooled, while five are water-cooled machines. The air-cooled units are equipped with motors ranging from 1/6 to 3 hp. Motor capacities of the water-cooled machines are from 1/3 to 3 hp. All units in the Kulair display are adaptable for use with either sulphur dioxide or methyl chloride as the refrigerant.

In the line of freezing units models Nos. 1800, 2100, 2200, 2300, 2400, 2500, 2600 and 2700 are on exhibit. These coils can be used for domestic, apartment self-contained and multiple unit installation. The compressor models are made with the Kulair floating reed discharge valve and shaft seal. Seven of the condensing units are used for commercial applications.

E. S. Lape, general sales manager, is in charge of the Kulair exhibit. He is assisted by H. C. Whitmore and S. E. Demerest.

# FOOD PRESERVATION PLAN PRESENTED AT N. E. L. A. CONVENTION

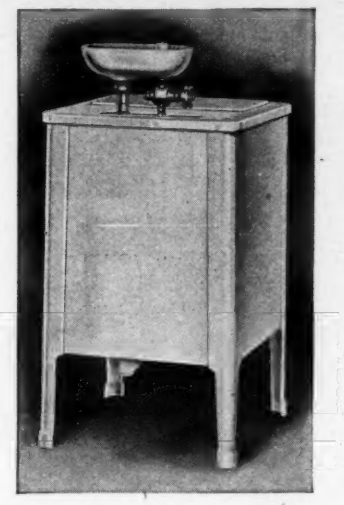
(*Concluded from Page 1, Column 5*)

be the back-bone of the national effort. The country has been divided into twenty districts, and regional directors have been appointed to carry on the work. They will be responsible for the organization of local councils throughout their districts. In addition there will be six or more field experts from the advertising agency who will assist the regional directors in their work.

"The men I have just mentioned—twenty regional directors and their six assistants—will explain the local Plan Book, a copy of which can be obtained today from the official N. E. L. A. booth. This book will give you the complete outline of the program. The regional directors will make addresses before local interested groups which will be composed mainly of the electrical interests, gas companies, milk dealers, ice companies, distributors and dealers of electric refrigeration, medical societies, women's clubs and other similar organizations.

"In order to arouse the interest of the American public, an idea contest will be conducted on the subject, 'Why 50 Degrees is the Danger Point.' There will be a first prize for the best idea submitted, a model home located anywhere in the United States. This home will be worth somewhere in the vicinity of $25,000 when it is completed. The second prize will be a Cadillac. It is expected that at least a million essays will be submitted. This contest should do much to impress the underlying thought of the program on the public.

"We believe that every public utility will want to become prominently identified with this movement. It is sponsored by M. S. Sloan and has the active support of many organizations interested in the preservation of food. If you will call at the official booth of the N. E. L. A., representatives of the National Food Preservation Committees will be very glad to explain the entire program and to present each visitor with a plan book."

ALL PORCELAIN ENAMELED

CAPACITY 6 TO 10 GAL. WATER PER. HR. COOLED FROM 80° TO 50° F.

AUTOMATIC STREAM CONTROL

C-301

"EBCO" Cooler Fountain

The "EBCO" is distinguished from ordinary fountains by the automatic stream control which maintains a constant height of drinking stream regardless of varying line pressure—prevents water waste and objectionable squirting.

The inside of cabinet is sheet copper. Water and cooling coils are separate—no contamination possible. May be used with ⅓ or ¼ H. P. Compressor, set remote from cobler. Furnished complete less refrigerating equipment.

*Write for Full Details*

*The* D. A. EBINGER SANITARY MFG. CO.
401-11 W. Town St. Columbus, Ohio.
*Manufacturers also of Ventilated Closets, Urinals, Wash Fountains and Steel Partitions for Toilet Rooms*



# *The Four Major Advantages of a Dry-Zero Insulated Cabinet Are Four Major Points of Refrigerator Salesmanship*

**1. Running Time Reduced 15%.**
**2. Troublesome Insulation Odors Eliminated.**
**3. Less Wear on the Operating Unit.**
**4. Undiminishing Efficiency.**

SO VITAL is correct cabinet insulation to the operating efficiency of any automatic refrigerator, that it is only natural that the major advantages of Dry-Zero dovetail with the major points of sales strategy. Every purchaser of an electric unit is interested in its operating cost . . its freedom from odor trouble . . its freedom from mechanical breakdown and its permanence . . and on every one of these points Dry-Zero insulated cabinets exert a powerful influence.

Take the first point . . *Reduced Running Time.* U. S. Bureau of Standards tests prove conclusively that Dry-Zero leads the list in heat-stopping properties. This greater efficiency means lessened heat entry . . and obviously lessened running time. Actual tests have set the figure at a 15% reduction.

The second point . . *freedom from troublesome insulation odors* . . is also subject to the same definite proof. Dry-Zero will not rot. Even though completely submerged in water it shows no signs of deterioration over a period of years. When installed in a Dry-Zero insulated cabinet it imparts this same clean, sanitary aspect to the walls. It eliminates odor troubles.

*Lessened wear and tear* . . the third point of sales attack . . follows directly the reduced running time . . Operating 15% less often to remove the heat that has penetrated, units in Dry-Zero insulated cabinets are preserved over a longer period of time. They are not subjected to maximum performance. They allow more multiple hook-ups to be run from a single plant.

As for undiminishing efficiency, you can guarantee with the utmost confidence that a Dry-Zero insulated cabinet will not lose its efficiency. Dry-Zero is accepted as one of the most permanent insulants known. It will not disintegrate. It is unaffected by moisture and *will not sop up water.*

100% co-operative with your sales strategy . . Dry-Zero insulated cabinets will make any automatic unit more efficient in its operation . . more lasting in its service . . and more economical. Samples and complete scientific background will be sent upon request.

Dry-Zero Corporation
130 N. Wells St.
Chicago, Ill.

DRY·ZERO

*We endorse the National Food Preservation Program initiated by the Refrigeration Committee of the National Electric Light Association.*

# N.E.L.A. CONVENTION ATLANTIC CITY JUNE 3-7-1929

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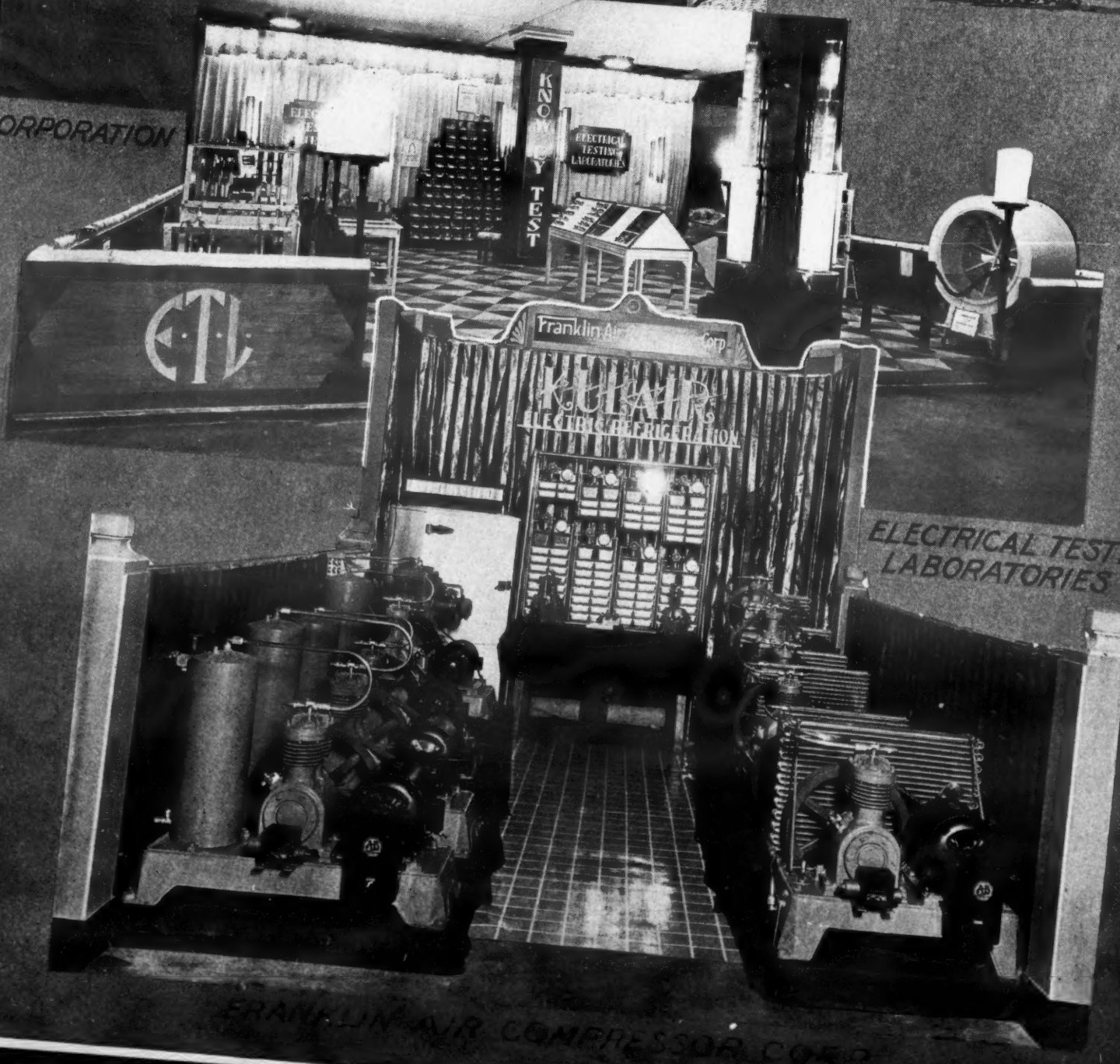



ELECTRICAL TESTING LABORATORIES

FRANKLIN AIR COMPRESSOR CO.?

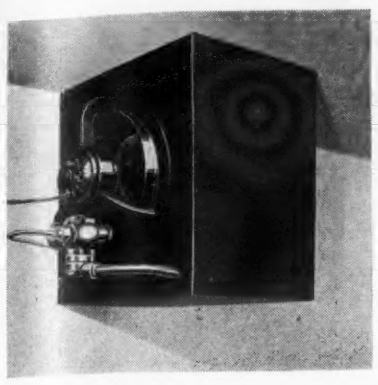
# Copeland Develops New Type of Commercial Cooling Unit

INSTALLATION of all Copeland refrigeration equipment in the large kitchen of the newly-completed Down Town Club, Penobscot Building, Detroit, has revealed for the first time a new type of cooling unit which Copeland has developed—a special fin evaporator type, housed in a box 18 x 18 x 18 inches. This cooling unit prevents dehydration of the air in the box through the use of a small fan which keeps the air in constant circulation.

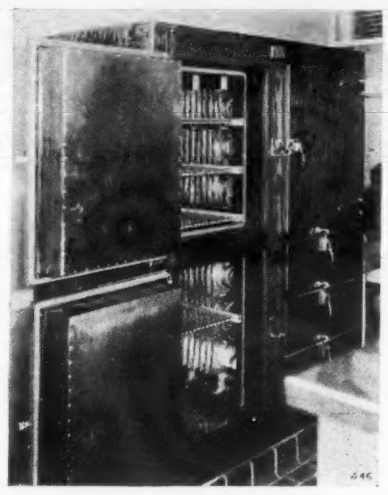
Copeland equipment is used exclusively for refrigeration throughout in the kitchen of this club, whose membership comprises the leading business men in Detroit and which houses a dining room capable of seating some 300 persons. Specifically, the equipment includes three large individual type refrigerators, an ice cream cabinet, a special counter refrigerator, a special ice-maker with a capacity of 75 pounds or 500 ice cubes at one freezing, and one large walk-in box with three large compartments for refrigeration of meats, dairy products and vegetables. This box is 20 feet long, 9 feet wide and 7 feet high.

Installation of a box this size in a kitchen brought up several difficult engineering problems. Obviously it was necessary to conserve every bit of space possible. Copeland engineers studied the problem from every hand and at length it was decided to install this new type unit.

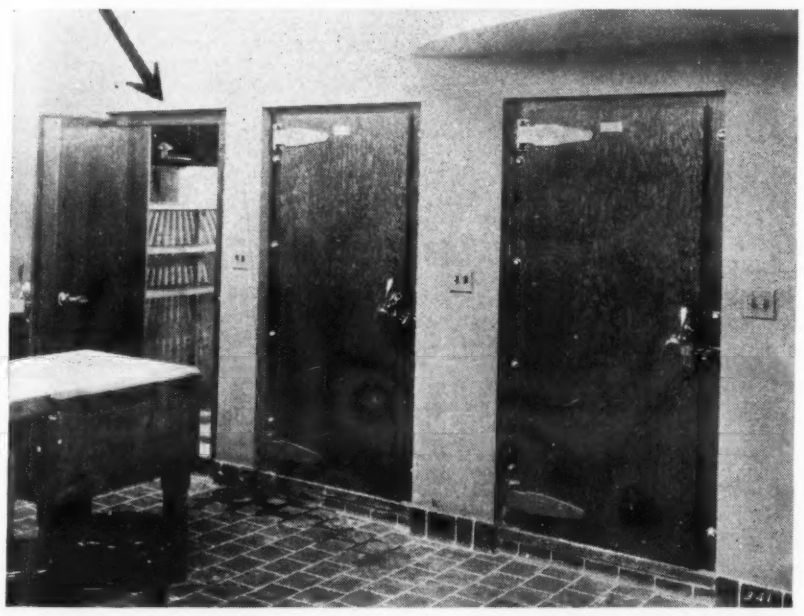
Three units of this type were installed, one in each compartment of the large box, and occupying only a small corner of the space. Thus, through use of these, a bunkerless refrigerator was brought out, with practically its entire space available for storage of food.



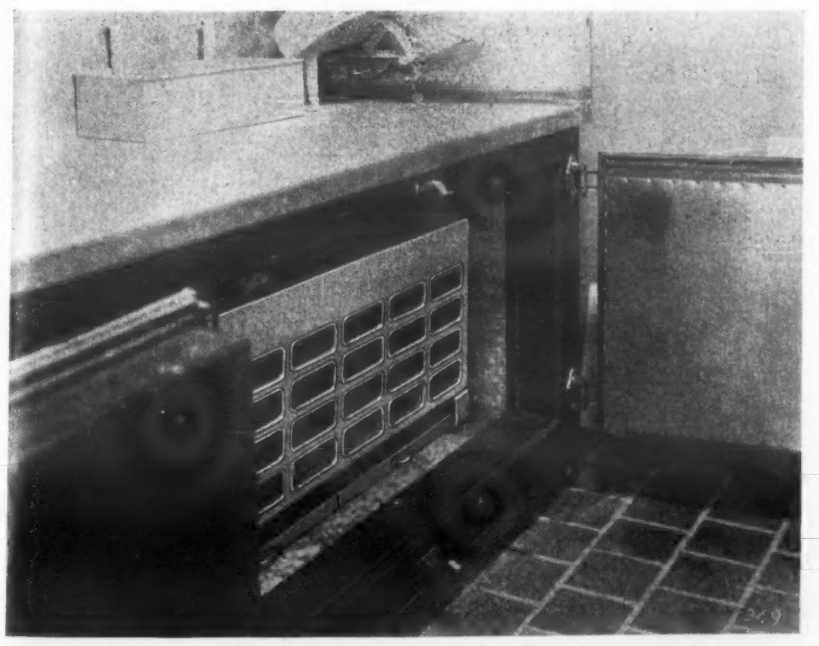
The new Copeland cooling unit, which is approximately 18 x 18 x 18 inches, utilizes a special fin evaporator placed in a special housing, air being conditioned through evaporation by means of a special fan, which creates a positive air circulation in the refrigerator and makes the evaporation unit more effective because it is operated at a temperature very near that of the refrigerator, avoiding any frosting of the evaporating section or dehydration of the air in refrigeration and providing an even temperature.



Considerable space has been saved in the individual type boxes and the counter through the use of Copeland zero tubes, which are located directly behind the door jambs, permitting use for food storage of the space ordinarily taken for bunker purposes.



This large refrigerator is operated by a Copeland X-1200 condensing unit, a two-cylinder, water-cooled compressor with a one-horse-power motor and ice-melting effect of 1200 pounds every 24 hours.

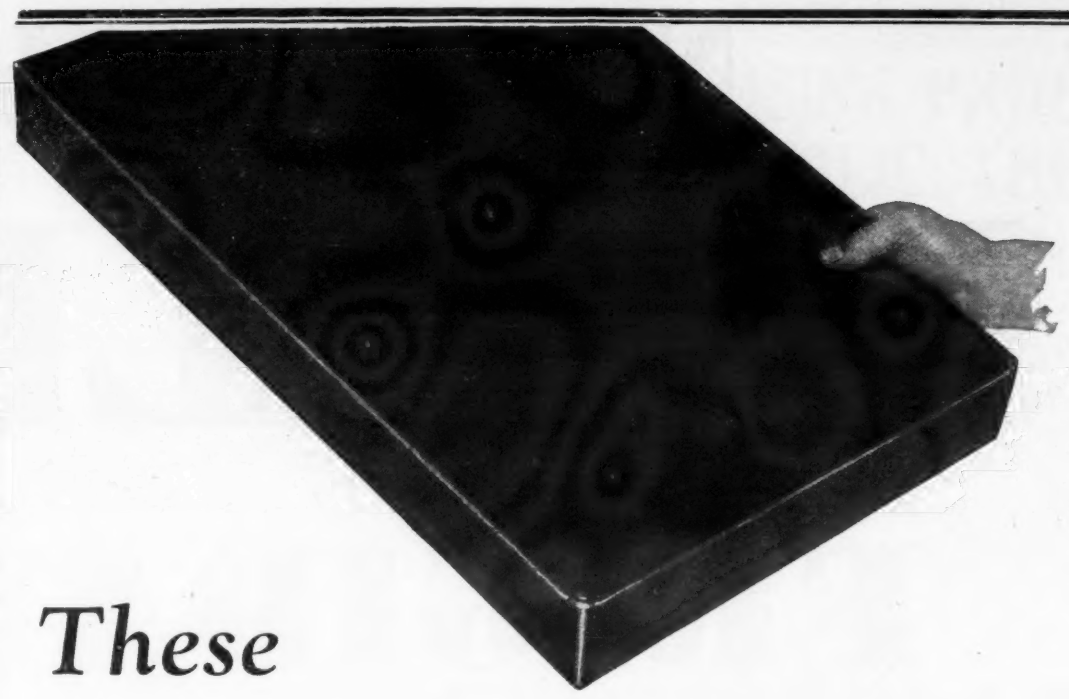


The three individual refrigerators and special counter are operated by an X-1200 unit, while the ice cream cabinet and ice cube maker are operated by a W-825 unit, a two-cylinder, water-cooled compressor with a ¾-horse-power motor and an ice-melting effect of 825 pounds every 24 hours. As all of these units are water cooled they are not affected by the kitchen temperature.

# SPARKLETS HOLDING OPEN HOUSE AT THE STRAND, ROOM 502

Several electric refrigerators have been installed in rooms 502-4-6 at the Strand Hotel, Atlantic City, for chilling dozens of Sparklets syphons according to A. Edwin Fein, president of Sparklets, Inc., New York. Open house will be held daily during the N. E. L. A. Convention.

Ladies are invited to visit Room 550 where Miss Eloise Budde of the Home Economist Dept. will demonstrate the Sparklet method of making frozen desserts.

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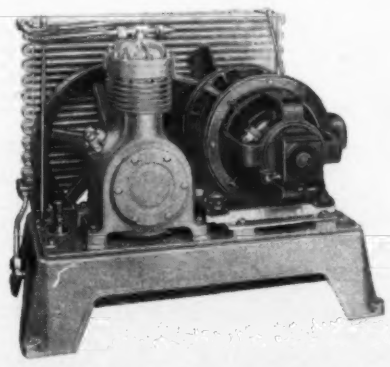

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